

650.5
CL

OF THE
UNIVERSITY OF ILLINOIS
26 MAY 1915

ESTABLISHED 1848

RURAL
WORLD

Registered in
U. S. Pat. Office

COLMAN'S RURAL WORLD.

DEVOTED TO AGRICULTURE, HORTICULTURE, HORSES, CATTLE, SHEEP, SWINE, ETC.

OLDEST AGRICULTURAL AND LIVE STOCK JOURNAL IN THE MISSISSIPPI VALLEY

Sixty-Eighth Year.

ST. LOUIS, MO., MAY 27, 1915.

Volume LXVIII. No. 21.



Big Beauties Fresh From the Garden

WHAT OUR READERS THINK & DO

SARCOXIE, THE STRAWBERRY
CENTER OF MISSOURI.

Sarcoxie, the oldest town in southwest Missouri, is noted far and wide, for the quality and output of its strawberries. Wilde brothers, who for years have had an extensive wholesale business in fruit trees, extending to the Pacific coast, are at the present time attracting flower lovers, and local excursions to their acreage of pecanies.

Mr. C. L. Wilson, as the local postmaster and having a large acreage of alfalfa, on which on the morning of May 12 we counted 25,000 or better porkers, has not discovered the hard times that have so demoralized some classes of business.

John Chapman, the local harness maker, began his annual vacation Monday, May 12, and shaped things for tent-life for himself and wife at the Carthage fair ground. Twenty-seven years ago this season, he drove Edward E., by Blue Bull 75, to his record of 2:26½. That season he started him 16 times and won heats in 12 of his races. A 4-year-old filly by Hinder Wilkes, and a 2-year-old by Gov. Hadley, son of Baron Wilkes, will have his entire attention. He says, "my babies are fat and strong, as I want them. They will get no scraping to reduce flesh." Mr. Chapman is past the allotted three score and ten, and hair and mustache are as white as the paper on which the Rural World is printed, but children would not enjoy the anticipation of tent life more than John Chapman and his good wife.

H. H. Bean is a new recruit to the ranks of trotting horse enthusiasts. Last fall he sold his draft horse and he says: "Uncle John Chapman, who was with Toler when he first bought Ashland Wilkes, induced me to buy North Gift, by Northman, son of Ashland Wilkes; dam, by Titian, son of Fairy Gift, and many of my friends told me I could do nothing with that kind of a horse. North Gift has had more patrons to date than the draft horse had up to and including the same date last year. It has surprised and pleased me, and I think it will surprise some of those friends."

Sarcoxie is cleaned up ready for strawberry business. Pickers are arriving in all kinds of shapes, and the white blooms visible throughout the fences, along the road side, suggest that the shortage of 1915 may be in said pickers and not in the berries.

The present demand for mineral is sending lead and zinc to points higher than they have ever reached and there are more smelters at work than ever in the history of the southwest. It would not be Sarcoxie without the black smoke to the northwest, which indicates where the Sarcoxie mines are located. We noted, too, many neat, clean, well finished vacant dwelling houses, and too many unused business houses on the public square to tally with the rush there will soon be at the strawberry sheds, and the output of the mines. They will be shipping in car-load lots by the 22d of May, and that will be within a month of the longest day in the year.

In the midst of the shipping season, I was in Sarcoxie at dark one night, and counted 68 wagons waiting to unload, with no certainty that the last had arrived. As I took the train for Pierce City I could only guess at that part of it. There are probably no better strawberries than those grown in the Ozarks in Missouri.

Sarcoxie led off in this, and has been ably assisted by Neosho, Monett, Pierce City and Marionville, representing Jasper, Newton, Barry and Lawrence counties, and the outlook now is the best in years. The acreage is not up to the high water mark, but there is an unusual show of new plats for other years of picking.—L. E. Clement, Missouri.

EXPERIMENTS IN MANAGING THE SOILS OF NORTH MISSOURI.

Editor, Rural World:—The results of eight years of experiments with lime, fertilizers and manures on seven different soil experiment fields in north Missouri have just been published by the Missouri Agricultural Experiment Station at Columbia. These fields represent the level and rolling prairies of central and northeast Missouri and they have been in operation for a sufficient length of time that the results are trustworthy. The information secured is of much value to the farmers of north Missouri.

One of the most striking facts brought out has been the rather general need of lime on the prairie soils of these parts of the state. The need for ground limestone has been found to be variable, running from practically nothing on some of the rolling prairies near the water courses, where the glacial gravel lies near the surface, to as high as four tons in some places on the heavier prairie land. For the man who expects to farm these lands intensively, and particularly where he wishes to grow clover, the use of from one to three tons of ground limestone per acre is usually necessary.

Another striking need of these soils is that of available phosphates. Bone meal, or highly phosphatic mixed fertilizers have given almost universally good net returns during these experiments. This has been particularly true on wheat and clover, while very good returns have also been secured on corn. The use of 150 to 175 pounds of bone meal, or of 175 to 225 pounds of acid phosphate is to be recommended drilled in with wheat, particularly on the level prairie and the more worn phases of rolling prairie. The same or slightly heavier applications drilled in ahead of the corn planter with a fertilizer drill is also good practice. The raw rock phosphate may be used to advantage where immediate returns are not important, applying at the rate of 600 to 1,000 pounds per acre once in four to six years and plowing it under with organic matter.

The use of 75 to 90 pounds per acre of bone meal or of medium grade mixed fertilizers have given good net returns, applied in the hill or drill for corn. This practice is adapted particularly for the man who must have immediate returns. It is not a soil building process. Somewhat larger amounts may be used on seasons of good rainfall but if the season is dry, over 100 pounds is very apt to cause the corn to "fire."

The experiments have shown that one of the greatest needs of the more worn areas of the prairie, particularly is that of organic matter or humus. The most satisfactory manner of building up this material in the soil is by crop rotation, manuring and the use of green manures. The time is here when a systematic crop rotation should be established on all well handled farms on these prairies. The use of manure has brought a return of \$1.60 per ton as an average of all fields on which it has been used in this part of Missouri, thus showing the great need of supplying organic matter to the soil as well as the remunerative advantage of carefully saving all manure that can be produced.

Bulletins 126, 127 and 128 give recommendations regarding soil management in north and northwest Missouri. They are free.—M. F. Miller, Department of Soils, Agricultural Experiment Station, Columbia, Mo.

ACCOUNTING SYSTEM FOR GRAIN ELEVATORS.

For the information of those interested in co-operative grain elevators, the marketing specialists of the United States Department of Agriculture have devised a complete accounting system and set of 15 forms especially adapted to the business of such elevators. This system and the forms for its installation which are described in bulletin 236, "A System of Accounts For Farmers' Co-operative Elevators," was developed after a thorough study of all accounting systems now in use in the grain trade. It also includes suggestions made by

a number of elevator managers and grain men throughout the country.

Before publication, the system recommended and the forms were submitted to careful practical tests in representative elevators in seven of the grain states. As a result of this practical business use of the forms, the system has been adopted by the Farmers' Union of Kansas, The Grain Dealers' Association of Illinois, and the national council of Grain Dealers' Associations. In developing the system the specialists had in mind two objects, first the devising of a complete system of accounts for grain elevators, and secondly the developing of a system adapted to all elevators which might encourage these enterprises to keep their accounts in a uniform way.

The specialists believe that the adoption of some uniform accounting system, besides standardizing accounts, practice will enable employees to become more proficient in accounting, give stockholders confidence, and make possible the exchanging of elevator statistics. The system has been so devised as to accommodate itself to all the conditions common in the grain states. Its use as a loose-leaf system, however, enables it to fit the different requirements of various elevators, which in most cases will not need to use all the forms of the system in keeping accurate accounts.

COULDNT FOOL HIM.

Sandy (newly arrived in the Canadian forest-land)—Whatna beast's you?

Native—A young moose.

Sandy—Och, haud yer tongue! If that's a young moose, I'd like to see ane o' yer auld rats!

Delivered To You FREE
on approval and 30 DAYS TRIAL

This 1915 Model
Choices of
94 styles



SEND NO MONEY but write today for our big catalog. It's free. It contains combination offers. Also furnish you our latest catalog for free. Also much useful bicycle information. Send for it.

LOW FACTORY PRICES direct to you. No one else can offer such values and terms. You cannot afford to buy a bicycle, tires or sundries without learning what we offer you. Write now.

MEAD CYCLE CO., Dept. T-318, CHICAGO, ILL.

Let Us Send You a Genuine Edison Phonograph on Free Trial



right to your own home. Encourage your family and your friends. Send it back at no expense if you don't want to keep it. A few dollars a month now pays for a genuine Edison at Rock-bottom prices and without even interest on monthly payments. Order for our beautiful Free Edison Catalog. A pencil or a letter is enough. But send it at once. Write today.

F. K. Babson, Edison Phonograph Distributor, 1453 Edison Block, Chicago, Illinois

BABY BOOTIES, 10c

It would be hard to find a more appropriate gift for Baby than a pair of embroidered booties. We will furnish you with a pair of the booties illustrated—stamped on a good quality of white flannelette—together with our 8-page illustrated embroidery booklet, for only 10 cents. Century Mercantile Co., St. Louis, Mo.

ARMIES MUST HAVE HAY

Many Shiploads Will Go to Europe. Farmers Advised to Plant Heavy Forage Crops. Farmers' Notes Taken in Payment For Seed

Every sign says to the farmer, "Plant all you can of some good drouth-resisting forage crop."

Our hay this year must feed the livestock of Europe as well as our own. This should mean a huge demand for hay. Besides, already in large sections of America the weather is too dry. This is bad for hay that is not drouth-resisting. Good drouth-resisting hay should make splendid money for every farmer this year.

Money In Sudan Grass

Sudan grass is a sure drouth-resister, yielding plentiful choice hay through the driest season. It yields more tons to the acre than any other forage crop—three to ten tons per acre. First cutting, fifty to sixty days after planting. Additional cuttings every thirty to forty days till frost kills dead.

Follow Small Grains With Sudan

After your wheat or oats are off, if it is not later than July 25th, you can plant the stubble to Sudan Grass and get a good hay crop before frost. Take two crops from your land this year.

Pay For Your Seed With Note

If you will plant ten acres to Sudan Grass, I will supply you with a liberal quantity of seed and accept your four months' note for \$20.00 in settlement for the seed.

How to Pay For Seed With Hay

If you will plant forty acres or more, I will supply a liberal quantity of seed for planting at the rate of \$1.75 an acre, accepting your four months' note in settlement, and will buy sufficient of your baled Sudan hay to pay for the seed, at \$15.00 a ton, delivered at your nearest railroad station.

The Agricultural Department has declared that Sudan Grass is the best forage crop known. I am the biggest grower of Sudan Grass in America, and believe it will bring millions of dollars to the farmer. I know it is so good that I am making you this extraordinary offer. I am negotiating for army hay contracts. I recently wrote a book entitled "SUDAN GRASS—ITS HISTORY, USES AND METHODS OF CULTIVATION". It gives just the information you should know. I will send it free if you ask for it.

The seed I will ship is of the very highest class, and a certificate of inspection signed by the State Experiment Association, vouching for its purity and freedom from all other grasses and weeds, will accompany the shipment.

If you prefer to pay cash for seed, I will allow you a discount of 5 per cent providing payment is made within five days of receipt of seeds.

Please write me at once, stating whether you will pay cash or give a note. If the latter, then give number of acres you will agree to plant. State whether you own your own farm and give references. Promise to give me your four months' note at settlement, and I will ship seed at once, and send note for your signature. Act quickly. Planting time is on us, and I have only seed enough to plant 20,000 acres.

DAVID B. CLARKSON
P. O. Box 540, Robstown, Texas.

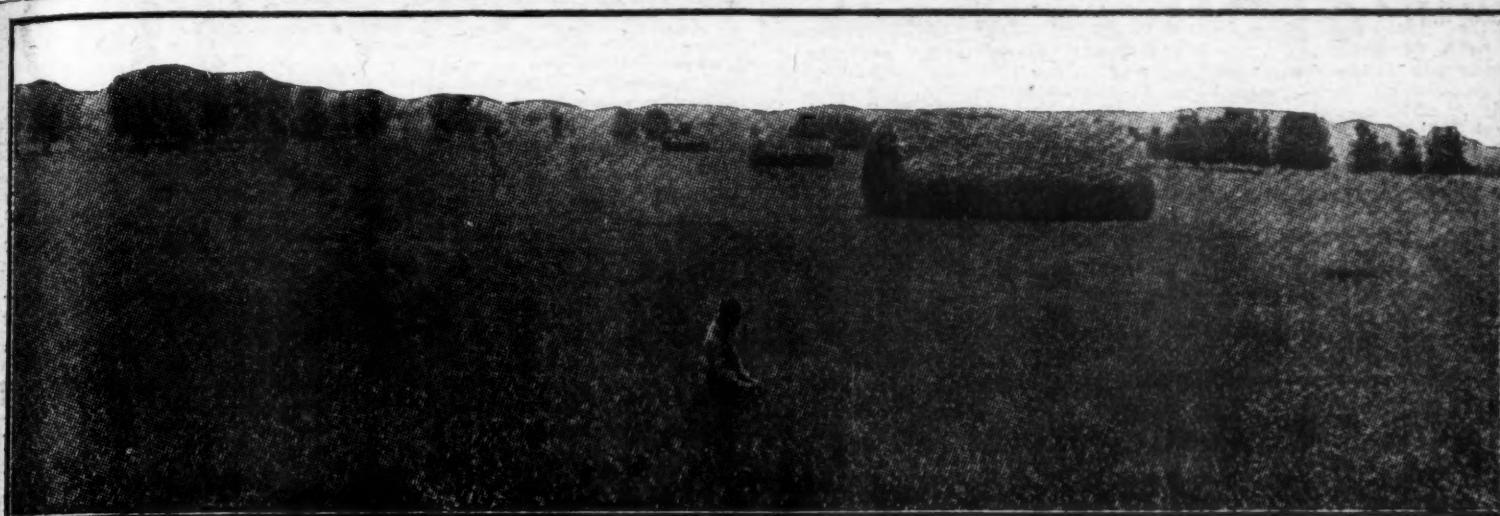
The
The
lacks
tions
cause
raisin
ladder
top.
appea
and c
porke
cated
When
they
twice
the fa
The
The
for hi
grade
While
be a
money
Grain
Good
keep
Cond
gener
belt?
period
What
drop
chanc

COLMAN'S RURAL WORLD

Vol. 68. No. 21.

ST. LOUIS, MO., MAY 27, 1915.

WEEKLY.



Alfalfa, a Crop That One Should Never Lose Confidence in—It's the Kind of Green Goods That Equal in Value Real Dollars.

Don't be Afraid of the Confidence Game

There's no Gamble in Raising Hogs and Cattle, but There Is in High-Priced Grain---Have Confidence in Live Stock---Grow Forage Crops and Cheap Feeds.

By Clement White, Kansas.

THE wise farmer steers clear of the "old style" confidence games, and adds weight to his wallet. There are some instances when confidence is misplaced; at other times the man who lacks confidence loses out in the long run. Conditions at present, for instance, are calculated to cause many farmers to lose confidence in the hog raising industry. Corn is away up the high price ladder, and shows indication of roosting upon the top. High-priced grain and low-priced hogs do not appeal to the farmer as a perfect combination. Men who became rich during the era of high priced hogs and cheap grain, are removing every trace of the porker from their farms. Few farmers can be located who are not losing confidence in the hog. When they gaze upon the porker's honest features they see an imaginary Goblin that will consume twice its worth in corn if allowed to remain upon the farm. As a result, the hogs are moving toward the place where hogs are summarily dealt with.

Have Confidence in Hogs.

The farmer should not lose confidence in hogs. The present condition of the market is an exception. Nine times out of ten the porker pays well for his keep. It is much easier to get rid of high-grade sows than to secure a supply of new ones. While speculation in hogs at this time would likely be a waste of time and probably result in a loss of money; every farmer should retain his brood sows. Grain is high, but forage crops will soon be at hand. Good pasture, with a small allowance of grain, will keep the sow and her family through the summer. Conditions may be different next winter. Suppose general rains are in evidence throughout the corn belt? Land which has been rested during drought periods will produce the maximum yield of corn. What would the farmers do with a record-breaking crop if there were no hogs in the country? Probably corn will sell high for many months; the chances are favorable for high-priced grain; but profitable crops could not be grown. Thousands of

pork will also sell high, when the run of hogs at the various markets begin to diminish.

Good hogs have always been a safe proposition, if they are handled properly. As long as people eat pork hogs will continue to be a safe proposition. Should hogs disappear from the majority of farms the dearth of pork would be a calamity. Hogs are one of the species of live stock that we cannot afford to dispense with.

To Get Profitable Pork.

When we state that hogs should be retained upon the farm, we do not mean to infer that methods of raising the spring crop of pigs could not be altered. Many farmers have not learned that pork can be produced cheaply, providing proper feeding methods are followed. This year every farmer should decide to get full value from his alfalfa pasture, cane, cowpeas, rape, etc. In every section of the farming areas of the United States, some variety, or varieties, of cheap feed can be produced for summer consumption. If the farmer will forget that grain is high, exert his energies towards perfecting his pastures, and make an attempt to grow some cheap feed, the chances are all in favor of profitable pork.

If the corn is all gone, don't sell the brood sows. Many pigs have been raised without corn. Try something else. Plant peanuts if your locality is adapted for the crop. Sow cane patches. Increase the acreage of oats. Oats make a satisfactory feed for growing pigs, and have the advantage of maturing early. If the imagination of the farmer is stretched a trifle, and all his reasoning facilities are brought to bear upon the subject, he will find some way to provide feed for his pigs.

Swine Save the Waste.

One reason why hogs should be retained upon the farm is that they fit in well with the "balanced live stock production." It was decided years ago that the man who grew grain year after year and sold the grain, would eventually deplete the soil until

land owners have proven this fact to their entire satisfaction. Live stock must be retained upon the successful farmer's land.

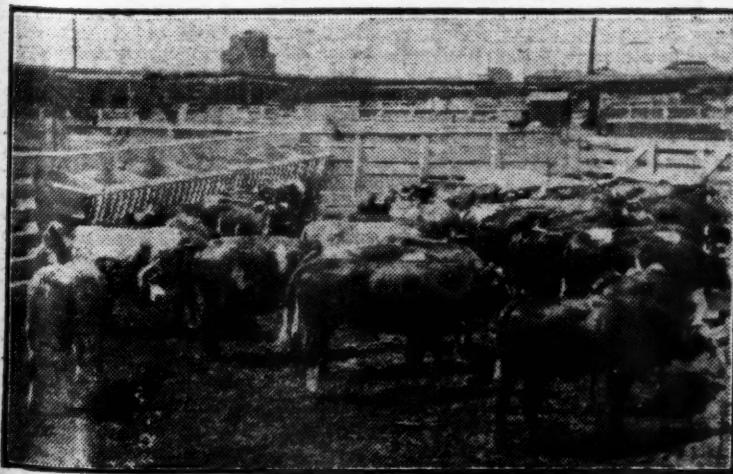
Suppose the land owner intends to fatten some steers next fall; beef will likely sell at a premium and the man who raises his own cattle will make money faster than a Klondike prospector of '98. Won't cattle feeding be a lonesome process without hogs to follow the cattle? Now we have gotten down to the main issue. If the farmer gets full value from cheap feed during the summer, he can feed the hogs at a profit next winter. A number of hogs can be fattened behind the feeding steers; the gains they make while in the corral with the steers will be clear profit. The waste from the fattening steers can be turned into pork; but unless it is turned into pork it is waste.

For the General Farmer.

The great grain kings are not interested in the matter of keeping a number of brood sows; but the majority of American farmers are not great grain kings. They make their living by raising live stock, growing legumes, such as alfalfa, cowpeas, etc., and raising a limited amount of grain. If a man counts his land by the thousands of acres he can do about as he pleases; one big wheat crop gives him sufficient cash to buck any proposition which may put in an appearance. This article is directed in the interests of ordinary farmers—men who farm for a living and cannot afford to risk heavy losses.

When the grain king goes broke he lands with a smash; he seldom gets upon his feet again. On the other hand the general farmer seldom goes broke, providing he knows how to manage his affairs. It is a well recognized fact that hogs have given more general farmers a start in life, and made more men wealthy, than any other one thing. When the farmer raises hogs he does not deplete his land; when he raises grain and sells it he markets his soil.

(Continued on Page 4)



Turn Your Grass Into Gold by the Beef Cattle Process.



Put Your Money in Pigs and Take It Out in Pork.

Fighting the Weeds

Methods of Controlling the Most Persistent Kind, the Perennials.

Of the three classes of weeds, annuals, biennials and perennials, the last is the most resistant, and because of their propagation, largely by underground parts as well as by their seeds, it is difficult to eradicate them. Farmers' Bulletin No. 660, "Weeds: How to Control Them," of U. S. Department of Agriculture, deals not only with perennials, but with annuals and biennials. It points out that it is possible, if a good rotation is followed, to keep the farm almost free from weeds. In regard to preventing perennial weeds from making a top growth the bulletin tells of five ways: Clean cultivation; pasturing; growing smother crops; frequent cutting with a hand-hoe, spud or mower, and smothering small patches with building paper or other material.

In the main, cultivation will have to be relied upon to destroy perennials, and it is done either with or without a cultivated crop growing on the land. Cultivation is especially effective if the field has been planted in check rows, so as to permit the field being worked in two directions. Because the ordinary shovel or tooth cultivators allow many weeds to slip through unharmed, the sweep or weed-knife type is recommended. These types of cultivator skim along under the surface of the soil and cut off all weed stems.

Don't Let Them See the Light.

Most well established perennials will continue to send up their tops after cultivation stops, no matter how thoroughly they have been cut down during the period of cultivation. This situation is met by frequent choppings with a hoe. If the top is thus thoroughly kept down for a year it is usually sufficient to eradicate even the worst of our perennials. This plan is especially effective against Canada thistle, bull nettle, and bindweed, or wild morning-glory.

A bare fallow is often used to attack the perennial weed crop. However, it is seldom advisable in fighting weeds to fallow for an entire year as it does not permit the farmer to get any use of his land. A good plan is to use the land during the early part of the season, and to fallow it the latter part. Thus the land may be pastured up to midsummer, or a crop of hay or small grain may be taken off before starting the fallow. This plan has the advantage of starting the work of eradication by fallowing at a period when nearly all weeds are in their most susceptible stage. Under this plan the work of fallowing should be started as soon after harvest as possible. The land is plowed and then harrowed or disked at frequent intervals during the remainder of the season to prevent top growth. Ordinarily shallow plowing is best in fallowing for weed control, as this keeps the mass of weed roots at or near the surface where they will be more easily dried out by the sun. Under this plan the greater part of the eradication is done by large implements and without the hindrance of cultivated crops. Furthermore it is done in the time of year when the farmer is ordinarily not pressed with other work. It is quite successful against the weedy grasses, such as Johnson grass, Bermuda grass, and quack grass.

Some Kinds Can Be Smothered.

As smother crops, those most commonly used are alfalfa, buckwheat, soy beans, millet, sorghum, and bur clover. Alfalfa, where it succeeds well, is the most effective smother crop, largely because it combines frequent clipping with the smothering effect. Closely allied with the smother crops for keeping down perennials is mowing or cutting, in use on pastures, roadsides and other uncultivated places. Pasturing with sheep, hogs, or goats is of some value in eliminating the perennials and has been used to great advantage in getting rid of such weeds as bindweed, or wild morning-glory. While smother crops, pasturing and mowing may seldom be relied up-

on to completely eradicate perennial weeds they make much easier the work of weed eradication by cultivation that should follow.

Really as important as the principles of weed elimination, is the man behind them. Clearing a farm of weeds, especially perennials, is no easy task, requiring a systematic plan of attack carried through to a finish.

MODEL DAIRY BARN A SOURCE OF PRIDE AND PROFIT.

A model dairy barn is a source of pride, pleasure and profit to the owner no matter in which state he lives. Here is a description of one built recently in Michigan. The owner is H. B. Porter of Lenawee county. The building is 32x80 with 16-foot posts which is set upon a cement wall two feet above the floor, and it is covered with a gambrel roof.

The lower floor is of cement throughout and is divided into cow stable, milk and feed rooms, and a covered barnyard. The stable is provided with revolving stanchions for 18 cows, nine on a side and facing each other across a wide feed alley. This alley extends to the end of the barn and the milk and feed rooms are located upon each side of it.

Covered Barnyard.

The covered barnyard takes up rather more than half the length of the barn as it is planned to feed all of the roughage here and to clean the stables directly into this room from whence it will go to the fields. It is not intended that any manure or other refuse shall collect around the outside of the barn. Mangers are placed on three sides of this barnyard and on the fourth side there is a 20-barrel cement watering tank and two big doors for the ingress and egress of a team and manure spreader.

In planning this structure Mr. Porter had in mind the legal requirements of this state placed upon dairy barns and their management with regard to light, pure air and cleanliness, and there are 31 four-light windows opening into the lower floor, and four larger ones in the gables. Nineteen of these windows open directly into the stable and covered barnyard from the south side and west end, thus insuring a flood of sunlight where most needed.

The Ventilation System.

Four large air flues run from the lower floor to ventilators on the roof of the barn, two from the stable and two from the barnyard. These ventilators, four in number, make a pleasing break in the ridge line of more than 80 feet. Ample provision is made for carrying off all waste water, including that from the roof.

To one unacquainted with the inside of a modern gambrel roofed barn, the hayloft—second floor—in this barn is a marvel in point of room found there. It is not quite as big as the dancing floor in the Saltair Pavilion built by the Mormon church at Salt Lake, but it is absolutely bewildering to the novice. The straw loft alone, the space over the covered barnyard, is estimated to hold 30 acres of heavy oat straw. It will be seen that there is no driving floor in this barn, the loft being filled from the end of the barn.

The structure is enclosed with yellow pine and painted in a pleasing shade of slate color and all windows, window casings, doors and cornice is painted white. This gives the building a very attractive appearance. The total cost of the building and equipment was about \$1,700.—E. A. Fuller, Michigan.

MISSOURI THE CENTER STATE.

Missouri stands out as the greatest of farming states at the Panama-Pacific Exposition at San Francisco—and every cent so spent bids fair to bring a dollar's worth of returns by attracting new capital and desirable home-seekers to our own country, so

Canadian Wheat to Feed the World.

The war's fearful devastation of European crops has caused an unusual demand for grain from the American Continent. The people of the world must be fed and there is an unusual demand for Canadian wheat. Canada's invitation to every industrious American is therefore especially attractive. She wants farmers to make money and happy, prosperous homes for themselves while helping her to raise immense wheat crops.

You can get a Homestead of 160 acres FREE and Other lands can be bought at remarkably low prices. Think of the money you can make with wheat at its present high prices, where for some time it is liable to continue. During many years Canadian wheat fields have averaged 20 bushels to the acre—many yields as high as 45 bushels to the acre. Wonderful crops also of Oats, Barley and Flax.

Mixed farming is fully as profitable an industry as grain raising. The excellent grasses full of nutrition are the only food required either for beef or dairy purposes. Good schools, market convenient, climate excellent. Military service is not compulsory in Canada, but there is an extra demand for farm labor to replace the many young men who have volunteered for the war. The Government this year is urging farmers to put extra acreage into grain. Write for literature and particulars as to reduced railway rates to Superintendent Immigration, Ottawa, Canada, or

GEO. A. COOK,
125 W. 9th St., Kansas City, Mo.
C. J. BROUGHTON,
112 W. Adams St., Chicago, Ill.
Canadian Government Agent.

160 ACRE FARMS IN
WESTERN CANADA
FREE

declares a news bulletin of the state board of agriculture.

In the Missouri section of the Palace of Agriculture appears the following legend under a gigantic map that tells the story true in the fewest possible patriotic words: "Missouri is Neither North nor South, Nor East Nor West, but a Part of Each and of Each the Best—A State of Prosperous and Happy Homes."

"SHOULD A NURSE CROP BE SOWN WITH ALFALFA?"

There is a decided difference of opinion among growers of alfalfa concerning the relative value of a nurse crop. Many are of the belief that a nurse crop is essential to a good stand of alfalfa, while others are of the opinion that a nurse crop is unnecessary. As a rule, on sandy lands that are subject to blowing, or on heavy lands which have a tendency to bake, a nurse crop may be of benefit, as it reduces blowing or baking. Oats and barley make the best nurse crops because they shade the ground the least. They should be seeded at the rate of from 30 to 40 pounds to the acre. These should be cut for hay so as not to shade the alfalfa plants too long. Unless the soil is subject to blowing or baking it is not advisable, as a general rule, to use a nurse crop. Under dry land conditions a nurse crop should never be used, as the moisture supply is too limited to sustain two crops at one time.

DON'T BE AFRAID OF THE CONFIDENCE GAME.

(Continued from page 3)

Even if grain is high; the value of good farm land is so great that selling it in the form of grain is not a paying proposition.

The wise farmer will not allow his judgment to be overruled by the present mixed-up condition of affairs. He will not forget that hogs are good property 99 times out of 100. Isn't that a fairly safe proposition? Most city men will buck a game which offers so splendid an opportunity for winning.

Don't Sell Cattle Either.

Here is a sample of the conversation which may be heard in the average farming locality: "Well, Jake, I guess we work for nothing when we handle live stock. I can make as much money by selling my corn, oats, and alfalfa as by feeding them to cattle and hogs. Guess I will sell off the cattle and break out that level 40 acres of pasture. Corn is high, you know."

We will admit that the prices offered for grain are tempting. However, every farmer should consider the matter well before he breaks out alfalfa meadow, prairie meadow, pasture, etc., and grows grain. If the stand of alfalfa is good let it alone; nothing pays better in the long run than alfalfa. If the prairie grass pasture or meadow has not been killed out; don't plow it up. Prairie grass is invaluable. Where can you find a better pasture for your cows than prairie grass? Where can you secure better roughness for horses than prairie hay. After prairie sod has been

broken, good bye! You can not reseed the patch. High-priced grain is not a safe gamble every year. Crops which offer pasture and roughness are always safe propositions.

No one who knows anything about the farming game would advise the farmer to raise nothing but hogs. Such a course would be unwise, at present at least. The ideal manner of keeping the hog markets supplied is for each farmer to retain the number of brood sows that he can handle without loss. Some men can hold 25 or more sows; others may not care to retain more than a couple. One of the most successful farmers in the country is planning to hold all his brood sows. He could sell grain if he chose; he states that he is going to feed his corn upon his farm. "I wouldn't sell it for \$1.00 a bushel," he explains.

The level-headed farmer has not lost confidence in hogs.

Stick to Alfalfa.

The writer has not heard a great deal about alfalfa of late. Everyone is talking wheat—\$2.00 a bushel wheat at that! Wheat is good property; so is alfalfa. Suppose Turkey loses control of the Dardanelles! Alfalfa will continue to be good property. We are in favor of every farmer producing crops which will be of the most benefit to him. Every farmer should use his own judgment; the men who get in on the ground floor of present grain markets are going to make money. The way conditions appear at present grain will continue to be good property. But this is no reason why farmers should lose confidence in other crops. The acreage of alfalfa cannot be increased too rapidly. If the landowner has land which should be in alfalfa, alfalfa should be sown regardless of the price of wheat. This rule also holds good with other varieties of farm crops.

Growers of pure bred seed grains in Wisconsin shipped seed last year into 36 states of the Union, to five provinces of Canada, and to five other foreign countries.

COLMAN'S RURAL WORLD

A. B. CUTTING, Editor.

1915	MAY	1915				
Sun	Mon	Tues	Wed	Thurs	Fri	Sat
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

INTERPRETING FARM RECORDS IN THE RIGHT WAY.

Advice to keep records is being constantly reiterated but little is written or spoken as to the vital question of their interpretation. Farm records must be correctly interpreted to be of value. Moreover they may prove a positive detriment to the farmer who interprets them wrongly and acts on his interpretation. One danger of misinterpretation arises from the fact that often the accounts with the individual farm enterprises, and with the farm as a whole, are not studied from the same point of view, or, are studied from a point of view that does not measure their true relation as agents of gain.

There are three modes of measuring the relative profitability of farm business, involving respectively the finding of, (1) the farm income, (2) the farmer's labor income, and (3) the farm profit. The farm income is the amount left from the farm receipts after paying all the farm expenses; the labor income what is left after interest on the farm capital is deducted from the farm income; and the farm profit the balance remaining after a fair allowance for the labor of the farmer is deducted from the labor income. In other words, farm income is balance over farm expenditures, labor income is balance over expenditures and interest, and farm profit is balance over expenditures and interest and the farmer's own time.

Of these three, the labor income has been found to give the best index as to the net result of the year's work. It stands for what the farmer has produced by farming or putting capital to work in agriculture. Capital alone can earn interest, and all that the farmer can claim to have produced by his efforts is what he has made over and above what his capital would have earned if safely invested. It therefore seems plain that the most accurate point of view from which to study and interpret the farm records is their contribution to the labor income.

After study of the records, if any changes in the farm make-up are planned, all sides of the effect of such changes should be carefully worked out, and it must be borne in mind that sometimes those enterprises that yield small labor income may be very necessary to the farm economy. They may be the only methods by which the waste products, coarse roughage, etc., can be made to yield any income or help to maintain the fertility of the soil. These small yielding enterprises again may give employment to labor and capital during otherwise idle seasons. Radical changes may have far-reaching effects on the entire farm economy, through disturbing the relation the various enterprises bear

Founded by Hon. Norman J. Colman
Published by Colman's Rural World Publishing Co.

NORMAN J. COLMAN,
First U. S. Secretary of
Agriculture.

Colman's Rural World was established in 1848 by Norman J. Colman, who later became the first United States Secretary of Agriculture. As a clarion of advanced agriculture this journal has attracted nation-wide support, and is today held in highest regard by thousands of intelligent and discriminating readers.

Colman's Rural World strives to bring the greatest good to the greatest number at all times. Each issue is replete with helpfulness and good cheer. It is read for profit and pleasure, and yields a satisfactory return to each individual subscriber. Our advertisers are rewarded with excellent results.

Colman's Rural World is mailed postpaid to any address in the United States or island possessions for one dollar per year or three years for two dollars. All subscriptions payable in advance. Remit by draft, registered letter, post office or express money order. In changing address give old and new addresses.

Colman's Rural World is published every Thursday at 718 Lucas Avenue. Contributed articles on pertinent subjects are invited. Photographs suitable for reproduction also will be welcomed. Address all communications to COLMAN'S RURAL WORLD, 718 Lucas Ave., St. Louis, Mo.

Entered in the postoffice at St. Louis, Mo., as second-class matter.

to each other and to the farm as a whole.

It is therefore prudent to weigh carefully, and view the farm records from every side, before making radical changes in the farming system. Any desired change should be made gradually, for jumping at conclusions is poor business policy in farming.

COCKROACHES, ANTS AND BEES MAY DISSEMINATE DISEASE.

The investigations of recent years have disclosed the relations of insects to malaria, yellow fever, bubonic plague and sleeping sickness. The striking results already demonstrated in respect to the activity of mosquitoes, fleas, bedbugs and house flies, inevitably raises the question as to the possible significance of other species of insects which may be less abundant but whose contact with man may be occasional or confined to restricted localities. This group includes cockroaches, ants and bees. Their role is as yet purely conjectural; but it is of interest to consider the possibilities as they present themselves to one trained to observe the versatile habits of insects and to recognize the opportunities for infection to which the sanitarian must give heed.

That an insect which will devour any sufficiently soft substance, from human foods to glue, grease and water colors, and which will live by preference in the cracks of the floors and

walls of houses, bakeries, restaurants, sugar refineries and tanneries, where their bodies come into contact with the filth and refuse that necessarily accumulate in such places, should carry a host of germs about, on and in their bodies and be able to infect our foods, is certainly not surprising. Yet this is the habit of life of the omnivorous cockroach. Roaches probably also feed on tuberculous sputum and disseminate the bacilli as readily as the house fly.

Ants, which are often abundant in houses and are readily disseminated by commerce, sometimes become a pest to the housewife, particularly when they get into the stores of food. They have not escaped suspicion as disseminators of pathogenic micro-organisms. Wheeler points out that it thus becomes possible for ants to spread disease in different ways.

Finally the bees, lauded for centuries by poet and prose writer alike, have not escaped the accusation of suspicion, says the Journal of the American Medical Association. Wheeler has observed the stingless bees visit collections of garbage in the canal zone, presumably gathering foreign substances which they knead into the cerumen cells in which they store honey eagerly collected for food by the natives in many parts of tropical America. According to Wheeler, there are records of intestinal disorders or even death following the eat-

ing of such honey. The suggestion of possible contamination with disease germs collected by filthy insects is plain.

PARLIAMENTARY LAW A VALUABLE ASSET FOR THE FARMER.

A man does not have to go to congress or even to the state legislature to find a knowledge of parliamentary practice useful. The average farmer probably has more need to know how the business of a meeting or assembly of any kind should be conducted than has the average city man. He is likely to have occasion to take part in the town meeting, or the grange, or some association to which he belongs. It is unquestionably a great advantage to him if he can present his case in the correct parliamentary form, or is able to stop proceedings, which he believes are injurious, by a proper use of parliamentary law. An example will, perhaps, make clear the value of such knowledge.

A member of an organization was found to be morally unfit for continued connection with it. The majority were in favor of excluding him. Some one made a motion to that effect. The secretary, who favored the member in question, put down the name of the maker of the motion, contrary to the custom of the organization. The maker of the motion objected, but the chairman declared his objection out of order. He then withdrew his motion, and as no one wanted to be recorded as the maker of the motion to exclude the undesirable member, the matter went no further, and the unfit member remained, to the detriment of the society. Had the maker of the motion known how to appeal from the decision of the chair, he would no doubt have had the support of the assembly, and carried his point. This is only one of many ways in which a knowledge of parliamentary law may be of great value to the average member of any rural organization.

Somebody has said that success comes in cans, failure in can'ts. Success for beef men or dairy farmers certainly comes in cans—the "big wooden cans," in which the corn crop is stored for winter. Twice as much feed to the acre, better feed, cheaper feed, more easily handled feed—that's what the silo means. Put one up and watch the expense of your farming go down.

Beans are such a valuable food that it would be an advantage to agriculture if more attention were given to the crop. The proportion of digestibility of the bean is very high, which makes it an excellent food stuff for horses, stimulating their muscular energy and power of resisting fatigue. And for cattle, both for fattening and milk production, beans have been proved to be a first-rate adjunct to the ration.

40 Years Ago • 20 Years Ago

In Colman's Rural World.

(Issue of May 29, 1875.)

We have in the United States 38 agricultural colleges, with 389 professors and 3,917 students. Few of the graduates, however, become farmers.

A million pounds of the new spring clip of California wool have been sold at San Francisco, at from 18 to 25 cents, an average of from one to two cents per pound better than last year.

The foot-and-mouth disease, which prevails so generally in Great Britain, ought to cause great caution in American importers of cattle, sheep and swine. We don't want it here among our herds, but we shall have it again introduced unless great precautions are taken.

(Issue of May 30, 1895.)

The direct loss to crops, the damages to machinery and stock and the decrease in the value of land due to weeds in this country amounts to \$10,000,000 a year.

The farmers' sons of today are to be, and will be, the farmers of the next generation. Their fathers owe them the parental provision, supervision and direction.

Every year the people of the United States import potatoes, the home supply seldom being equal to the demand. . . . Is it possible the farmers of the United States cannot raise all the potatoes wanted here without having to go to Germany, which refuses our meat products for them?

Gardening for Market

How to Grow Vegetables That Pay---General Principles and Some of the Details.

By Prof. R. L. Watts, Pennsylvania.

THE vegetable interests in this country today are greater than the fruit interests, from a monetary standpoint. And garden crops will become more and more important as the population becomes denser.

More should be done to popularize certain vegetables and the consumption of a larger amount of vegetables. Many of our fruit growers say, "Eat an apple every day." When you meet apple growers in restaurants, they will order an apple, for the sake of eating an apple every day. Why not eat a turnip every day or a cabbage? The theory is just as good. I think it would be a good thing to spread this idea all over the country: "Eat a carrot every day." Maybe you don't like carrots. I didn't a few years ago. Why, I didn't know the value of carrots as a food, because they were not properly prepared. If properly cooked, they have as good as anything. We should have a propaganda to encourage the consumption of larger quantities of vegetables.

Intensive Gardening.

I shall first state briefly the fundamental principles of market gardening. How about intensive gardening, on two or three acres of land? We find down east that this type of gardening is going out. Why? Because the supply of manure from the cities is becoming less and less. Years ago it was very common to use 75 tons of manure to an acre, and occasionally more. Today we find men who are using only 25 tons, even in intensive market gardening, because they cannot get more manure. This, of course, is on account of the trucks and automobiles that are used so extensively in the cities. This means that the vegetable garden is going to be forced farther and farther away from the city. Then we will have to do just what the gardeners are doing in New Jersey; we will have to resort to green crops for manurial purposes. There are hundreds of truckers in New Jersey today who use practically no manure and depend on crimson clover, cowpeas and soy beans to supply the vegetable matter needed in their soils.

More people should grow vegetables in rotation with farm crops. This is taking place to a considerable extent in Pennsylvania. For example, a man near a town which provides a good market for vegetables may stop growing so much corn and plant more potatoes than usual. Later he plants sweet corn, tomatoes and other garden crops that may pay better than potatoes. Almost before he is aware of the fact, the general farmer has developed into a truck farmer. This is happening in Pennsylvania and it will happen elsewhere. And there are going to be a lot of men forced out of intensive gardening because they cannot get the necessary manure.

It is necessary to conserve the fiber in the soil, and we must grow the crops which will do this, too. A soil devoid of organic matter is a dead soil. The soil is a workshop, where there are myriads of microscopic organisms working for us all the time. Our profit depends very largely upon the amount of organic matter in the soil. If you can buy manure, get it and put it on, plenty of it. I know of a farm of eight acres where a tremendous quantity is used. The owner claims that artificial watering is absolutely valueless. I know he is successful. His crops, he says, never suffer for moisture. There is always plenty of moisture, because he utilizes the manure. We must have this organic matter because it helps to control the soil moisture.

Selling Vegetables.

This business of selling vegetables is largely a matter of selling water. We accuse the dairymen of getting too much water in the milk, but we vegetable men use about the same methods. When I hauled cabbage to the market some years ago, I used to

say to the dealer: "You think you are getting cabbage, but you are getting water, because every barrel you fill is about nine parts water and one part cabbage." With strawberries it is about the same. Take ten quarts of strawberries, and you really get one quart of solid matter and about nine quarts of water. It is largely a question of getting enough water into the soil. Do you realize that for every pound of dry matter several hundred pounds of water are required to make that pound of dry matter? We should keep this in mind and bear in mind that the soil in our gardens is a great reservoir, to hold the tons of water necessary to make good crops. The matter of growing a great many bushels of our crops to an acre requires a soil that will hold the water necessary, and it takes an immense quantity of water to do that.

I do not know how far irrigation will be practical. Many of the market gardeners and fruit growers are installing the overhead system of irrigation. Any plan by which a man can make it rain when he wants more soil moisture is a great scheme. We find, all around our large cities today, that growers are controlling soil moisture conditions by using large quantities of manure or by overhead irrigation.

Use Only Best Seed.

In regard to the importance of having good seed, I am reminded of a striking instance of the value of branding. A gardener at Moorestown, New Jersey, raised remarkably fine watermelons, for which he got good prices. A few years ago, a commission man in Philadelphia who knew they were unusually fine asked him why he didn't brand his melons. It was a new idea to him; he had never thought of it. So he got some stickers, about two-inches long and an inch and a half wide, and put his name on them and also the word "guaranteed." This plan of advertising increased sales as well as profits.

I met a turnip grower the other day. He had the finest lot of turnips displayed at the county fair. I was greatly pleased with the uniformity and perfect shape of every turnip.

I said to this man: "How are you able to grow so much better turnips than your neighbors?"

He replied by saying: "Ten years ago I began to work on a flat turnip which was a very good producer, but it was too flat. I began to select seed to round out the root, and in a few years I had a root that was too long instead of too flat. Then I had to bring it back by selection to a round root, which took several years. Finally, I got the variety of turnip you see in the exhibit, and then I saved the seed. I have enough seed to last several years, and these turnips which I am putting on the market are commanding higher prices than any grown in this neighborhood." He was not a college-bred man, but he was a student and a close observer.

I want to appeal to you for greater care in the selection of seed, and I do not care whether you grow it or buy it from the specialists or reliable dealers.

What Crops to Grow.

Now, as to the selection of crops. In what crops can we place the greatest reliance? I had a letter from a Georgia lady who said: "I have learned that garlic sells at a very high price. I have ten acres of land out of the city that I want to plant to garlic. Will you please tell me how to do it?" This is a case where one jumps at a conclusion. I suppose ten acres would produce enough garlic to supply a large city. From my experience, you would probably expect me to mention cabbage in the selection of a crop.

The all-important thing in growing a crop of early cabbage is to have good, strong plants ready for that field the first day you can plant them. Several seeds should be planted in each pot,

MORE and BETTER WHEAT from the acre at less cost to grow.

— Two hundred to four hundred pounds of

Armour's Fertilizers

drilled in at seeding time will promote rapid root-growth, insure early maturity, heavy grain and more of it; reduced bushel cost; a good clover catch and a more profitable grain crop—

IT'S THE YEAR the world needs the grain.

Write for "More Money From Wheat."

ARMOUR FERTILIZER WORKS

Chicago, Ill.

Baltimore, Md.

Nashville, Tenn.

Dept. 118,

Greensboro, N. C.

How to Make Farming Pay

Agriculture

The Best Handbook for the Farm

By OSCAR H. BENSON

of the United States Department of Agriculture and

GEORGE H. BETTS

of Cornell College, Iowa

184 Photographic Illustrations, 444 Pages

THIS book shows how to raise bigger and better crops with less effort and with less expense, how to improve live-stock, how to increase the product of orchards. It teaches how to conserve resources and reclaim lands, and how to treat and cure live-stock diseases.

Everything of value known to the Government expert and taught by the Agricultural School is to be found in a nutshell within the pages of this book. It is complete, compact and practical, and its greatest value is to show the results of actual experience. It summarizes just those things that the farmer, fruit-grower and stock-raiser wants to know.

On Farm Crops, Horticulture, Soil, Farm Animals and Farm Economics, this work contains the latest and most accurate knowledge obtained by the United States Department of Agriculture and by the leading Agricultural Schools.

Price \$1.50, Postage Prepaid

COLMAN'S RURAL WORLD,
St. Louis, Mo.

GERMAN SILVER MESH BAG FREE

Embossed frame, pretty
embossed with handsome
design; 10-inch chain
Mesh Bags are all the
very best quality. Given free
for selling 20 large art and
religious pictures at 10c each.
We trust you with pictures
until sold, and give 40 beau-
tiful postcards as a extra gift
for promptness. Send name.
A postcard will do.
People's Supply Co., Dept. B, W.
716 Lucas Ave., St. Louis

Table Set 10c

Consists of one tray cloth, size
8 x 17 inches, and four doilies
to match, size 5 1/4 x 5 1/4 inches,
stamped on a fine grade of white
linen. One eight-page em-
broidery booklet is included in
this offer. All sent prepaid for
only 10 cents.

Century Mercantile Co., St. Louis, Mo.

(Continued on Page 7.)

The more
pests
people
mole
the F
gests
near
be in
shed
nail
berry
GAR
Str
leaf a
lead a
as cro
Str
holes
lead a
matur
Stra
holes
lead a
matur
Stra
holes
Pract
fected
Whi
beetle
ries a
roots.
insect
plant
Colo
eat le
at the
to 50
jurde
Please
Use b
senate

IN THE ORCHARD AND THE GARDEN

TO SUCCEED WITH STRAW-BERRIES.

Select site with care. Prepare the soil well. Keep the soil fertile. Plant adapted varieties. Use only good plants. Set plants properly. Keep soil well tilled. Use mulch for plant protection. Place only good fruit on market. Make the package attractive.



Strawberry packing shed on farm of McReynolds, Martin and McReynolds, near Pierce City, Missouri, showing the berries in pickers' crates waiting to be inspected before packing in shipping crates. Most of the inspecting at the shed is done by deft-fingered young ladies, but one or two men are kept busy nailing lids on crates and doing the heavy work connected with packing the berries.

GARDEN INSECTS—NATURE OF WORK AND METHODS OF CONTROL.

The common garden insect pests are more numerous than usual this summer. The ravages of many of the pests may be prevented by a few simple precautions. T. J. Talbert, entomologist in the extension division of the Kansas agricultural college suggests these measures:

Cut Worms—Eat off plants near the ground or climb plant and eat leaves. Scatter poison bran mash over the ground in the evening before and after the plants come up. A collar of paper fitted into the soil two or three inches around the plant and extending three or four inches above ground is also helpful. Plow in the fall.

Strawberry Leaf Roller—Larva rolls leaf and feeds upon it. Spray with lead arsenate and burn fields as soon as crop is harvested.

Strawberry Glea Beetle—Adults eat holes through the leaves. Spray with lead arsenate before the fruit is half mature.

Strawberry Crown Borer—Grub tunnels and feeds in crown of plant. Practice crop rotation. Burn over infected fields in fall.

White Grubs—The larva of June beetles damage grass, corn, strawberries and other plants by eating off roots. Practice fall plowing to expose insects and harrow thoroughly before planting.

Colorado Beetle—Adults and larva eat leaves. Spray with lead arsenate at the rate of three pounds of poison to 50 gallons of water as soon as injury appears. Poison may be used in bordeaux mixture.

Flea Beetle—Adults eat the leaves. Use bordeaux mixture containing arsenate of lead.

Corn Ear Worm—Eats the immature

kernels at the end of the ear. Dust the corn silk with equal parts of powdered arsenate of lead and flowers of sulphur. Plow the ground in the fall.

Cabbage Worm—Green worms eat leaves of plant. Spray with soapsuds and arsenate of lead.

Cabbage Aphid—Sucks sap from the leaves. Spray with nicotine solution and soapsuds just as soon as the insect appears.

GARDENING FOR MARKET.

(Continued from Page 6) so that there will be two plants in each hill for setting in the field.

Celery Pays.

Celery offers larger possibilities of profit to the acre than most other vegetables. There is a feeling among many gardeners that this crop cannot be grown profitably except in much soils or where conditions are unusually favorable. The fact is, however, that celery may be grown in a great variety of soils. The all important factor is a liberal supply of organic matter in the soil. This is usually supplied by the application of stable manure at the rate of not less than

set six to eight inches apart in the planted outside until settled warm row, and the rows should be about two feet apart.

Growing Onions.

The onion also offers splendid possibilities. The bulk of the crop is grown from seed sown in the open ground. This plan is quite familiar to most truckers. Another plan which meets with favor among a smaller number of growers is that of sowing seed of a large variety, like Prizetaker, under glass not later than the 1st of February. The rows should be two or three inches apart and eight to ten seeds should be dropped in each inch of furrow. When plants attain a height of five or six inches the tops are cut back to four inches. This operation of clipping is repeated as often as may be necessary so that the plants when set in the field are not more than four inches high. The plants should be strong and stocky and be able to stand a small amount of frost. Some growers prefer to grow sets of the Prizetaker, holding them over winter in satisfactory storage and planting them the following spring to produce either mature bulbs or onions for bunching.

—From an address delivered before the Minnesota Horticultural Society.

ORCHARD AND GARDEN NOTES.

Keep the onion field clean and well cultivated.

Make another sowing of peas, beans, beets, carrots, spinach, and Swiss chard.

Clean seed, clean soil, and good cultivation should give a good crop of potatoes this year.

Thorough cultivation must be given vegetables, fruit and flowers, if best results are to be obtained.

Don't forget to plant a few nasturtiums, California poppies, petunias, or other annuals in the garden.

Peppers and egg-plant should not be

Get this book FREE

Tell how you can now grow mushrooms at home in your kitchen, laundry, shop, etc. Spores now produced by scientific methods makes crop certain. Small beds which cost little to start often produce \$10 to \$20. No experience necessary. I tell you how to grow. My instructions, based on 20 years' experience, used in State Agricultural Colleges. Remarkable opportunity to add \$5 to \$20 a week to your income.

A. V. JACKSON, FALMOUTH
MUSHROOM CELLARS, INC., 417
GIFFORD ST., FALMOUTH, MASS.
Only Scientific Mushroom Farm in U.S.



7 Embroidery Pieces, 10c

Table Set Bargain!

What makes the table more attractive than white embroidery? This seven-piece table set, consisting of one centerpiece and six doilies to match, is stamped on white artlinen, 1/2 yard wide. We will include free with each set, an 8-page booklet illustrated with all the principal stitches in embroidery with description of each stitch.

All sent postpaid for only 10 cents.

Century Mercantile Co., St. Louis, Mo.

NEARLY FREE THIS BIG 3½ FOOT TELESCOPE

with Patented Solar Eye Piece

Here's a bargain. Never before has it been possible to obtain a Multi-focal telescope with solar eye-piece attachment for less than \$8 to \$10. But because we have made special arrangements with the inventors, and pay no patent royalties, and have them made in tremendous quantities by a large manufacturer in Europe with cheap labor, we are enabled to give you this outfit, provided you will send us \$1.00 to pay for a one year, new or renewal subscription to COLMAN'S RURAL WORLD and 35 cents extra to help pay mailing and packing charges on the telescope outfit (total \$1.35). Think of it—the solar eye-piece alone is worth more than that amount in the pleasure it gives—seeing the sun spots as they appear, and inspecting solar eclipses.

The Excelsior Multi-focal Telescope has a multiplicity of uses—it's pleasure is never dimmed—each day discovers some new delight. Distinguish faces blocks away. Read signs invisible to the naked eye. Use it in cases of emergencies.

Take the Excelsior Multi-focal Telescope with you on pleasure and vacation trips, and you can take in all the scenery at a glance—ships miles out; mountains, encircled by vapors; bathers in the surf; tourists climbing up the winding paths.

Used as a microscope it is found of infinite value in discovering microbes and germs in plants and seeds, etc. The Excelsior Multi-focal Telescope is mechanically correct—brass-bound, brass safety cap to exclude dust. Powerful lenses, scientifically ground and adjusted. Handy to carry—will go in pocket when closed, but when opened is over 3½ feet long. Circumference, 5½ inches. Heretofore telescopes of this size, with solar eye-piece and multi-focal lenses, have sold for \$8 to \$10, or even more. We do not claim our telescope is as nice and expensive in every particular of construction as a \$10 telescope should be; that would be unreasonable; but it is a positive wonder for the price. Each telescope is provided with 2 interchangeable objective lenses—one for ordinary range and hazy atmosphere, the other for extra long range in clear atmosphere, increasing the power and utility of telescope about 50 per cent.

COULD COUNT CATTLE NEARLY 30 MILES AWAY.

F. S. Patton, Arkansas City, Kansas, writes: "Can count cattle nearly 20 miles; can see large ranch 17 miles east, and can tell colors and count windows in houses."

L. S. Henry, The Bronx, New York, writes: "Your solar eye-piece is a great thing. I witnessed the eclipse at the Austrian Tyrol when the sun was almost 80 per cent

SAW AN ECLIPSE OF SUN

Rutland, Vt., Feb. 18, 1910.—Telescope arrived O. K. I have seen the spots on the sun for the first time in my life. Dan C. Safford.

COULD SEE SUN SPOTS

Rutland, Vt., Feb. 18, 1910.—Telescope arrived O. K.

I have seen the spots on the sun for the first time in my life. Dan C. Safford.

LIMITED OFFER

Send us \$1.00 to pay for a one year extension on your subscription to COLMAN'S RURAL WORLD, and 35 cents extra to help pay mailing and packing charges on the complete telescope outfit, which will be sent postpaid (total amount to remit \$1.35). Absolute guarantee of satisfaction or money refunded. DO IT NOW.

COLMAN'S RURAL WORLD
718 LUCAS AVE., ST. LOUIS, MO.



HORSE BREEDING AND RAISING

MISSOURI LIGHT HARNESS HORSE
NEWS AND VIEWS.

Editor, Rural World:—It is wonderful the affect the magic sign, "Imported," has on some minds; add imported and registered and you have all there is in human knowledge, so far as the foreign-bred draft and coach horse is concerned! The importers own the registers, and branded "pure bred" by the various stallion laws, they say must improve the horse stock of the country.

When I came to Missouri 30 odd years ago, if the horse came from Kentucky, you needed to ask no other question if they were light harness or saddle horses. Now Missouri is breeding as good ones as are bred in the whole United States.

The Krulls at Carthage, have bought a 3-year-old, by Baron Will Tell; dam, Molly Doon, by Herschell; 2nd dam, Cora, by Blue Bull 75. The late J. M. Leet, of Maryville and Chicago, said he drove Cora on the streets of Chicago, and never had her headed by trotter or pacer in eight years. She was a sister to Beauty, 2:28, that was trotted under various names. This colt, under W. B. Taylor's care, is showing speed fast.

Carthage, instead of her usual early meeting, when she has been seriously crippled by high water, takes the place vacated by Muscogee, Okla., in the "Great Western Circuit," taking Muskogee's dates, following the state fair, and will probably put on a couple of \$2,500 stakes. Carthage in that way can handle an independent meeting successfully. Wood Chavis, Otto Grigg and other trainers are handling public stables at the track. Joe Wilson, John Knowles and other breeders are driving their own colts.

Parmelia, 2:18½, dam of Baroness Parmelia, 2:16½, died a short time ago. She will undoubtedly be found in later great brood mare lists.

The Tullis mare has two in training, one by Solon Alcott, son of Solon Grattan, and the other by Baron Will Tell, 2:19½. She has a 1915 filly by R. Ambush, 2:09½, and has been bred to Todd Allerton, a double record son of Allerton, sire of one trotter and three pacers. The saving in the stud fees will not be profitable to her owner. R. Ambush will have 25 or 30 colts for 1915, and is doing a better business now than he has done previously.

Homer C. Spencer was down from Kansas City and offered \$500 for the coming 3-year-old by R. Ambush, one of Nelly Waters, by Bourbon W. Homer is in the employ of Lulu Long and was buying for her, with the tan bark in view. The colt should be worth more, for the track; very few colts have his style and speed.

Nelly Waters is again due to foal to R. Ambush, and will be bred back. Mr. Stebbins, in charge of the breeding stock at the Tangier farm, has promised to report the arrival. There are two Ambush colts at the farm.

Mr. Smith of Webb City, Mo., has a filly by R. Ambush; dam, by Al Swigert; 2nd dam, by Goodwood, 2:23½; 3d dam, by Trumper, 2:20½. Al Swigert is a pacer with 2:10 speed, and if this little miss is not a stake-trotter it would be hard to breed one.

Otto Grigg his driving a colt by R. Ambush; dam, by Black Dick, 2:11½, pacing, that will stand watching. Such breeding is bound to give harness speed. Mr. J. A. Kirby has Baron Will Tell and a son of Solon Alcott; both sired 15 mares in April.

With such a list of stallions in the stud as R. Ambush, 2:09½, Baron Will Tell, Earl Reaper, 2:14½, brother to Early Alice, 2:06½, and a list of ordinary cheap standard stallions, where is the breeder that can not suit himself?

The Breeder's Gazette is authority for the statement that more than half

the farm mares in use are trotting bred. Europe has learned that as cavalry horses the American trotting horse is equal to any and superior to most breeds of horses.

There never was a time when so many should be bred as at the present. The Missouri mule is a mighty good animal but the present is a mighty poor time to breed him. I spoke to a farmer with two trotting bred mares with foals at side. I asked him where he was going to breed. He said: "I have so many I won't breed this year." When his neighbors sell high priced colts and fillies, he will know more.—L. E. Clement, Pierce City, Mo.

BREAKING AND TRAINING COLTS— SUGGESTED PRECAUTIONS.

The erroneous idea that cruelty in horsebreaking and training is necessary is practically a thing of the past. Well directed patience has been found to give better results than inconsiderate applications of the "persuader." However, all horses are not to be treated alike; a high-strung sensitive horse must be handled gently, the dullard treated sharply. "The first thing in training a horse is to get his attention; second, make him understand what is wanted," says the new farmers' bulletin No. 667, "Breaking and Training Colts," by the U. S. Department of Agriculture. The education of the horse, continues the bulletin, is based on reward and punishment and each should immediately follow the act. The advantage of breaking a horse when he is young before he has developed a strong independent instinct is easily seen. The plan generally followed is to break to harness between the ages of two and three years. Colts should not do heavy work until they are four years old and should be accustomed to it gradually.

The following description of a rope harness to be used in teaching the colt to stand is also used in the first lesson on leading. A colt tied with this harness cannot easily injure himself in his efforts to get loose. A pull on the rope, as adjusted, exerts a pressure almost simultaneously on the crupper, surcingle and on the halter.

Teaching to Stand Tied.

Before a colt is broken to being led it should be taught to stand tied; this applies to unbroken horses of all ages. To do this, put a strong halter on the colt; then take a rope about 14 feet long, double it, putting the loop under the horse's tail as a crupper, twist the two ends together about three times so the twisted rope lies on the colt's back a few inches ahead of the tail; then let one come forward on each side of the horse, and tie them together in front against the chest just tight enough so that it will not drop down; then run a surcingle loosely around the horse behind the withers, tying into it the crupper rope at both sides. Have an additional rope about 12 feet long; run it through the halter ring, and tie it at the breast to the rope that forms the crupper. Tie the other end of the rope to a solid post, allowing about three feet of slack. Leave the colt tied for an hour. Another method is to have a loop in one end of the rope, run the lead strap through this loop and tie it with a little slack to the rope that forms the crupper, the other end, of course, being tied to a solid post.

While tied the colt should be gentled and accustomed to being handled on both sides on the hind parts, and on the legs. To do this, hold the headstall in one hand and with the other hand pet and rub the colt, first on the neck and head, then on the back and sides, and last on the legs. To gentle the hind parts take a stick about four feet long, wrap a gunny sack around one end, and tie it. Allow the colt to examine the stick with his nose, then rub it all over his body.

With this arrangement the colt's hind legs may be rubbed without placing one's self in danger of his heels. If he kicks at it do not hit him, but allow him to examine it again, and proceed as before. This lesson should continue until the colt will stand being approached from either side and rubbed all over. The second day he may be tied up again and further gentled with sacks, blankets, and noises

until he has no fear of them around him, under him, or upon him.

Another method of gentling a horse is to tie the halter rope to the tail. This forces him to go in a circle. When he gives in and stands quietly he may be harnessed, saddled, mounted, accustomed to strange sights and sounds, and handled with safety. This is one of the best aids in use in gaining a horse's submission.

Breaking to Lead.

The horse is now ready to lead. Loosen the rope from the post, step off from the horse, and tell him to "come," following the command with a pull on the rope. As soon as the horse advances pet him, then step away and repeat. He will soon follow without the pull on the rope.

The next day the crupper should be put on at the beginning of the lesson, but should be discarded after a short work-out and the halter alone used so that the colt will not depend on the crupper rope. These lessons should be continued until the colt leads satisfactorily.

To break to lead without crupper ropes use a strong halter with a lead rope. Step back about six feet from the colt, opposite his shoulders, cluck to him, and pull on the rope. The colt will be forced to take a couple of steps; reward him; cross in front to a similar position on the other side and repeat the command with a pull. Continue the lesson until the colt follows. Never pull straight ahead on the colt; he can outpull. Use diplomacy rather than force.

Breaking the Colt to Drive.

After the colt has been broken to lead he may be accustomed to the harness and trained to rein. The horse should never be hitched to a wagon or ridden before he is broken to drive in the harness. He should be trained to answer the ordinary commands. In familiarizing the colt with bit and harness the "bitting harness," which consists of an open bridle with a snaffle bit check and side reins, and surcingle with crupper, may be used. This rigging is put on the colt leaving the side and check reins comparatively loose, and he is turned loose in a small paddock for an hour. The second lesson consists of teaching the colt the feeling of the reins which may be tightened somewhat. The third day the driving reins may be used and the colt is taught to go ahead. Cluck to the colt, or tell him to "get-up," use the whip and let him know what is meant. Both sides of the colt should be trained, as objects viewed from different angles may frighten him badly. Driving in a right and left circle will facilitate this training. The next lesson consists in teaching the horse to answer the commands of "Whoa," "Get up" and "Back."

After teaching the horse to go satisfactorily in the bitting rig, the work harness with breeching can be substituted. The traces and breeching should be joined loosely together and gradually tightened, as the work progresses, thus familiarizing the colt with the sensation of wearing the collar and breeching. He is then ready to be hitched to the wagon or cart single or double.

Breaking the colt to drive double, also to ride, dealing with bad habits, throwing a horse, etc., are other features of this bulletin, No. 667, which may be had upon application to the Department of Agriculture, Washington, D. C.

OLD HORSES AND PONIES—ONE LIVED SIXTY YEARS.

For a horse to reach the age of 38 years is something phenomenal, although there are on record instances where horses surpassed that record. The average age of the horse is about 22 years. For a horse to advance 16 years beyond that, as did "Nig," owned by Christian L. Volz, of 42 William street, is remarkable. It can be matched, however, by a mare owned by a livery stable keeper in Birmingham, Alabama. This mare was 38 years old and the animal was at work up to the last. In 1896 a pony, belonging to Mrs. Pratt, of York, Pa., died aged 45. The Louisville Courier Journal mentions a horse that was still working at the age of 34. The veteran had done 26 years' work in a coach team.



FREE TO ANY WOMAN. Beautiful 42-Piece Gold Decorated Dinner Set for distributing only \$10. Free cakes of Complexion Soap. No money or expenses needed. W. TERRELL WARD, 214 Institute Place, Chicago.

Fancy Tea Apron, 10c



This design is the very latest. A beautiful combination of lace and embroidery pattern, stamped on fine quality White Lace, with enough material for strings. This Tea Apron and our 8-page illustrated embroidery book sent prepaid for only 10 cents. Century Mercantile Co., St. Louis, Mo.



FREE To every Boy and Girl. We give a fine Camera and complete outfit, chemicals etc., with full instructions. Just send your name and address and we'll send you 20 large art and religious pictures to sell at 10c each. When sold send \$2.00 and the camera and outfit is yours. We give 40 beautiful postcards extra for promptness; also a surprise gift extra for promptness. People's Supply Co., Dept. NW, 716 Lucas Ave., St. Louis, Mo.

Horses of a still older age are imported from England. A horse named Paramanta lived to be 53 and did an occasional day's work to within a few weeks of his death. The age of this horse is well authenticated, as, when he arrived at his 51st year, pains were taken to ascertain when he was foaled. Remarkable as this may seem there comes another case of still greater longevity. A Mr. Dampier, of Sillwarthy, had a pony which died within a few weeks of his sixtieth year. Edmund F. Dease, of Gallstown, West Meath, Ireland, had a pony which had been ridden by four generations of his owner's family. More cases of ponies than of horses reaching great length of years are recorded, and greater ages seem to be attained by ponies. These are isolated cases, and more horses die before reaching 25 years than otherwise.—Newark Call.

ABOUT TROTTERS AND PACERS.

As there has been many enquiries from horsemen of the United States about the shipping of race horses into Canada, for racing, we offer the following information on the subject. Before leaving the United States it will be necessary for owners or agents to apply to the Veterinary Inspection General at Ottawa, for a permit to bond race horses into Canada; by doing this they will save considerable time. The customs would pass them, but the carriers, railroads or steamboats would refuse them unless accompanied by an order from the Veterinary Inspector General. Horsemen in general should make a note of this fact and govern themselves accordingly.

A dispatch from Lexington, Ky., states that John R. Townsend, of Goshen, president of the Junior League of Amateur Driving Clubs, and of the Orange County Driving Park Association, has taken an option from John E. Maden, of Hamburg Place, on Nancy McKerron, 2:10½, the nine-year-old daughter of John A. McKerron, 2:04½, out of the former world's champion trotter Nancy Hanks, 2:04, and that she will be raced under his colors this season. Nancy McKerron took her record as a three-year-old in 1909, driven by W. J. Andrews, and was then regarded as likely to become the fastest performer to the credit of the former queen, but for some reason she has not been raced since.

In all spraying operations get well under the leaves. It is there the insects congregate.

Success has followed forest planting on the sandhills of Nebraska. Jack pines planted there by the government forest service 10 years ago now have a height of over 15 feet and a diameter of four inches.

For
consi
of du
two o
grow
pose
imala
They
tentiv
enough
roans
animal
speak
usual
At
dual
They
ers to
Engla
and a
overw
dual
are a
classe
from a
for br
mendo
Du
A fe
they c
of cow
you ex
be a d
strictly
ways
animal
fellow
ing gre
numbe
very r
dual p
It is
ciers a
crowd
for un
and sh
dairym
produ
of mil
vocates
pect a
as man
dairy c
feeding
them w
beef br
impossi
fact th
the mo
duces a
yearly
cal.
The d
form a
sive lik
beef a
feasted.
She is
er. By
that wil
cate co
the dai
a cow t
and fat
the will
a price
more th
properly
feeding
the bul
if steere
Such ca
birth at
feed lot
id gains.
A wel
er says:
a dual c
able typ
surpass
milk yie
and high
condition
developed

CATTLE FOR BEEF AND FOR MILK

THE SHORTHORN AS A DUAL-PURPOSE BREED.

For several years there has been considerable discussion of the merits of dual purpose cattle. In the past two or three years this discussion has grown quite keen, until now dual purpose cattle are the most talked of animals of any around the show ring. They are attracting interest and attention everywhere. And naturally enough, the famous old red, white and roans are the principal dual purpose animals talked of. In fact, when men speak of dual purpose cattle they usually mean Shorthorns.

At several of our eastern state fairs dual purpose Shorthorns are shown. They are reported by eastern breeders to be in great demand in the New England states. They are also becoming very popular in the cornbelt, and at present the demand for them is overwhelmingly greater than the supply. In England dairy Shorthorns, dual Shorthorns and beef Shorthorns are shown in separate and distinct classes. It is a fact that 80 per cent of the milk produced in England comes from a dual type of cow. And there, as in the United States, the demand for breeding dual Shorthorns is tremendous.

Dual-Purpose Animal a Stayer.
A few men are continually doing all they can to talk down the dual type of cows. These men believe that if you expect to milk a cow she should be a dairy cow or none at all. A few, strictly dairymen, who are set in their ways still say, "there ain't no such animal as a dual purpose cow." These fellows are, however, continually losing ground, and incidentally losing in numbers, because cattle breeders are very rapidly being converted to the dual purpose idea.

It is far from the desire of the fanciers of dual purpose Shorthorns to crowd dairy breeds out of existence, for undoubtedly the dairy breeds do and shall fill a logical place with the dairyman who is in the business to produce the largest number of pounds of milk possible from his herd. Advocates of the single standard type expect a dual purpose animal to produce as many pounds of milk as the best dairy cows, and have the form and fleshing conditions that will make them win over the highly specialized beef breeds at the shows. It seems impossible for these men to see the fact that the dual purpose animal is the most profitable, because she produces a moderate amount of milk, and yearly produces a good and profitable calf.

The dual purpose cow is large in form and capacious in body, not massive like the highly developed type of beef animal, and hardly so thickly fleshed, not coarse nor unduly refined. She is a good milker and an easy feeder. By good milker is meant a cow that will give milk enough at a moderate cost of feed to be profitable in the dairy and by easy feeder is meant a cow that when dry will make flesh and fat quickly and cheaply, so that she will be salable to the butcher at a price that will represent a little more than the cost of raising her. If properly bred she will transmit this feeding quality to her calves so that the bulls will make heavy veals, or if steered will make good feeders. Such calves can be sold even before birth at a good figure, or if put in the feed lot of the breeder will make rapid gains.

The Profitable Type.
A well-known Pennsylvania breeder says: "To establish the value of a dual cow as a desirable and profitable type, it is not necessary that she surpass or even equal the excessive milk yields produced by stimulation and high feeding under exceptional conditions by a very few individuals, developed as to their milking func-

tions and deficient in almost every thing else; or on the other hand, that her own carcass, or that of her steer calf, should equal or surpass in proportion of dressed meat the prize-winning bullock at the International."

There is a place on the farm for the dual purpose Shorthorn to fill. For many years the dominant type of cattle on the farms of the middle west has been dual purpose cattle, and the majority of them have been Shorthorns. They produce milk and butter for the family, and sometimes a little extra which was weekly exchanged at the country store, for the family needs. This type of cow had her place, but she was a scrub or poorly bred grade, and now has become unprofitable. There is no longer comparison between the pure-bred or high-grade animal and the scrub that existed 15 years ago. The strongest evidence of the usefulness of pure-bred animals is the unparalleled results that their introduction has proved in both beef and dairy herds. Would not the high-bred grade, or better, the pure-bred Shorthorn be profitable where the poor type of scrub was at one time profitabe?

Adapted to Most Regions.

Dual purpose cattle naturally fit into the scheme of farming practiced in most regions. Only a limited number of cows can be handled in the farm dairy, and there are roughages, pasture and corn existing about the farm in too great quantities to be consumed by all the dairy cows the farmer and his help could possibly care for. Why not then milk a dual purpose Shorthorn that is profitable in the dairy, one that annually produces a calf that will profitably consume these feeds? This cow makes good beef when her period of usefulness is over, and we have in the meantime very materially lowered the cost of producing our yearling feeder steers.

We are all aware of the deficiency of the beef supply of the world today, and keen are the discussions as to the best methods of replenishing this supply. Indeed this will be slowly brought about by the production of veal from the dairy breeds, or the production of feeders from the beef breeds, because at present it is unprofitable to maintain a cow, a whole year for the one calf that she is able to produce.

"Since the days when the 'Renicks' drove their first well-bred bullocks from the Ohio valley, over the mountains to the seaboard markets, the Shorthorn has been a familiar figure in the pastures, feedlots, dairies and stock yards of the United States. The Shorthorn is distinctively and emphatically a dual purpose breed. The bull calves can be turned into market topping steers, and under proper management the heifers develop marked value for the dairy," says Saunders in his history of Shorthorn cattle. "By the use of the Shorthorn the common cattle of the country have been graded up. Feeders have always been greedy to take these grade cattle as fast as they could be produced. From the earliest periods the breed has produced cows of splendid capacity at the pail. Bates was always proud of his butter records. Indeed in the early days there was scarcely a herd of note that did not possess cows of exceptional capacity in this direction. And these were not dairy cows either." In another chapter, Mr. Saunders says, "the strength of the shorthorn lies in its unrivaled range of adaptability, in its facility with which it responds to the varied demands of those who pursue a system of diversified farming."

Strong in England.

"In England the greater percentage of dairy herds is of Shorthorn blood," says C. S. Plumb of the Ohio State University.

"Wallace's Farmer" gives this testimony: "The Shorthorn in the last century, has done more to improve the common stock of America, Great Britain and her colonies in beef lines than all other breeds put together, and besides its grades furnish more milk and butter of commerce than all the dairy breeds combined. The fact that the majority of English breeders continue to produce dual purpose Shorthorns is conclusive proof that there is a great deal of merit in this type of cattle, as we cannot let ourselves believe that the Eng-

lish farmer is keeping them merely for their looks."

Prof. Geo. S. McKay says: "The Royal Agriculture College is radically in favor of the dual purpose animal. Furthermore they believe the Shorthorn to be the best type." The Shorthorns have been the most popular breed of cattle in the world during the present century, proven by the fact that they are cosmopolitan to a much greater extent than any other breed. We know that since the crystallization of the breed they have been famous for beef and milk production, and furthermore we have abundance of evidence to show that these characters were and are now combined.

We have in the beef Shorthorn the best milkers of the beef breed, and in the dairy Shorthorn one of the best milkers of all dairy cows. This is proven by careful comparison of the butter and milk records of the Shorthorn breed with those of the other dairy breeds. Good authorities state that in England Shorthorns take the record in the production contests at the various fairs. The dual purpose or blended type is a beef animal of exceptional quality and a dairy animal that is a beef animal of exceptional quality and a dairy animal that is very profitable. In proof of this the Iowa station has sold market topping steers from cows that produced over 350 pounds of butter yearly.

By careful selection and mating there is not a single logical reason why we cannot develop a lineage of cattle of the conformation, fleshing and killing qualities of a beef animal, and at the same time possessing a marvelously high record for the production of milk and butter. There is an opportunity of the age now open to the man who will develop as worthy, and lastingly popular a herd of dual purpose animals as Amos Cruickshank did of the beef type, of red, white and roans. It can and will be done; the question is, how soon? Beyond all doubt dual purpose cattle are the most desirable and most profitable breed of cattle. Furthermore who will question the fact that the Shorthorn is the most worthy and meritorious dual purpose breed we have.—R. T. Shiner, Missouri.

COST OF MILK PRODUCTION DETERMINES THE PROFIT.

That at least one-eighth of the dairy herds in the state of New York may return an annual net loss to their owners, is indicated in a bulletin just published by the Cornell University agricultural experiment station.

The study upon which the figures are based was carried on in Jefferson county in response to a general demand for information on the cost of producing milk. Year-long records were obtained for 53 dairy herds in the county, which is considered to have more favorable conditions than the average of counties in which the dairy industry is important.

Facts were gathered about the quantity and value of milk and butter-fat produced, the costs of feed and equipment, the profit or losses, and various other items. While seven of the 53 herds were kept at an aggregate loss of more than \$1,300 or an average loss of \$190 apiece, the average profit on all herds was 31 cents on the hundred pounds of milk; and the average net profit on each

cow in a year was \$20.39. These figures indicate that the farmer may make, under favorable conditions, a little less than two-thirds of a cent on a quart of milk.

The bulletin states, however, that most of the cows studied were above the average in production, which resulted in an economy of production; further that the food costs were not much more than half of what they would be in some less favored parts of the state, and that other costs were from 20 to 40 per cent less than they might be elsewhere.

Some "Lady Boarders."

The principal cause of loss in dairying is the keeping of cows which do not pay for the food they eat; they have come to be known as "lady boarders" and serve their most profitable use, according to the dairy experts, when converted into meat and hides.

The one way to insure their elimination from the herd, the bulletin says, is to determine the yield of each cow by weight of milk, and by the use of the Babcock test for the butter-fat content. The formation of cow-testing associations is urged upon dairy farmers, and details of their organization and purposes are given. It is announced that copies of this bulletin, number 357 in the Cornell experiment station series, entitled "The Cost of Milk Production," may be secured free on request by residents of New York.

THE OZARKS OF OPPORTUNITY.

The latest claim to fame for Christian county, Missouri, is the movement for a foreign colony under direction of the celebrated community worker, Father P. Bandani, who has wrought wonders in Arkansas.

Jewell Mayes, secretary of the Missouri State Board of Agriculture, applies the phrase, "The Ozarks of Opportunity," to the more than half a dozen millions of unimproved acres south of the mighty Missouri river, and predicts advance in real estate before the year-end.

Cut out all old stubby growth from flowering shrubs to give the young shoots a chance.

\$14 Buys A Banner Hay Rake, all Steel.
Weber Imp. & Auto Co., 1900 Locust St., St. Louis.

BABY BIB

10 Cents

Stamped on white Irish linen. The design is very dainty and simple and may be embroidered in white or colors as desired. This baby bib and our 8-page illustrated embroidery booklet sent prepaid for only 10 cents.

Century Mercantile Co.,
St. Louis, Mo.



Vanity Case FREE

Made of rich German silver, with fancy flower border. Has good mirror and powder puff compartment, places for quarters, dimes and nickels, also strong catch that will hold cards and bills, 16-inch chain. Given free to anyone for selling 20 large art and religious pictures at 10c each. We trust you with pictures until sold and give you 40 beautiful postcards as an extra gift for promptness. Send your name today.

People's Supply Co., Dept. E.W. 716 Lucas Ave., St. Louis

"INVINCIBLE, UNSURPASSABLE, WITHOUT A PEER"

Write a regular subscriber, who has read it for many years, of the TWICE-A-WEEK issue of the

St. Louis Globe-Democrat

TWO ONE-DOLLAR PAPERS ONE YEAR FOR ONLY \$1.

and this is the unanimous verdict of its more than a half million readers. It is BEYOND ALL COMPARISON, the biggest and cheapest national news and family journal published in America. It is STRICTLY REPUBLICAN in politics, but is above all A NEWSPAPER, and gives ALL THE NEWS PROMPTLY, accurately and impartially. IT IS INDISPENSABLE to the Farmer, Merchant or Professional Man who desires to keep thoroughly posted, but has not the time to read a large daily paper, while its great variety of well-selected reading matter makes it

an INVALUABLE HOME AND FAMILY PAPER.

Two Papers Every Week.

Eight Pages each Tuesday and Friday.

Sample Copies Free.

GLOBE PRINTING CO.

ST. LOUIS, MO.

RURAL WORLD and GLOBE-DEMOCRAT
EITHER ADDRESS, BOTH FOR \$1.00 NET

SHEEP & SWINE FOR MOST MONEY

TANKAGE FOR HOGS OUTDOES OIL MEAL.

Tankage, as a supplement to corn rations for hogs, is more profitable than linseed oil meal at present prices, and for nearly all classes of hogs is a more valuable feed.

Recent tests at the Minnesota Experiment Station are of interest to every hog raiser who does not have plenty of milk or buttermilk. R. C. Ashby, in charge of swine at the University Farm, gives the following results with hogs fattened for market last winter.

Of five lots of hogs fed from December 22, 1914, to February 24, 1915, three were fed on corn, shorts, and tankage, and one on corn, shorts, and oil meal. The average ration for the tankage lots was:

Shelled corn 84.45 per cent; shorts, 7.37 per cent; tankage, 7.47 per cent.

The average ration of the oil meal lot was:

Shelled corn, 77.83 per cent; shorts, 8.20 per cent; oil meal, 13.58 per cent.

The initial weight of the oil meal lot was 136.75 pounds; the final weight 211.70 pounds; the average daily gain 1.17 pounds; the number of pounds of grain for each 100 pounds of gain was 531.13; and the profit per bushel of grain 5.3 cents. The average initial weight of the three tankage lots was 138.83 pounds; final weight 228.17 pounds; the average daily gain 1.39 pounds; the number of pounds of grain for each 100 pounds of gain 482.16; and the profit per bushel of grain 12.5 cents. All feeds were paid for at the following prices: Corn 50

cents a bushel; shorts \$26 a ton; oil meal \$36 a ton, tankage \$50 a ton.

A certain amount of oil meal is good, but a mixture of the two feeds is better. The man who can supply all his feeds at home is fortunate. He who must buy should secure those materials which serve his purpose best and give the largest return for their cost price.

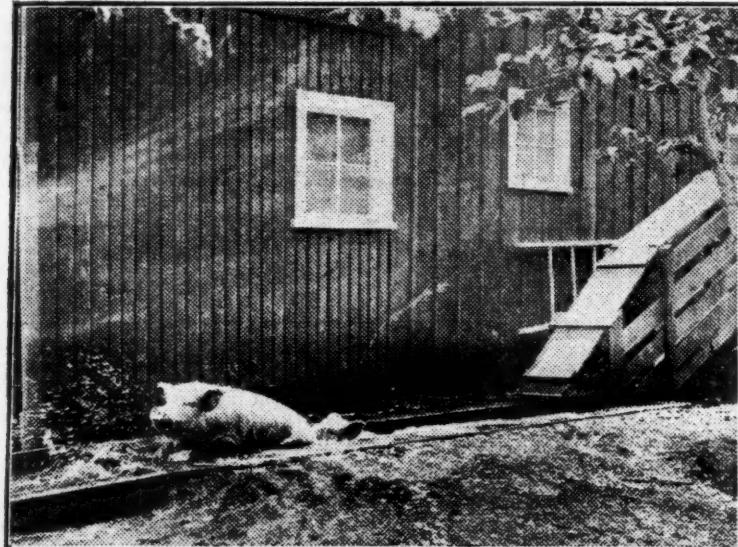
WHAT TO DO FOR SCOURS IN CALVES.

A farmer in Southern Missouri recently wrote to the College of Agriculture saying, "I am having trouble with my calves. I am raising them by hand. They scour all the time and I am afraid I am going to lose some of them. What can I do for scouring?"

J. G. Watson, extension assistant professor of dairy husbandry made the following reply:

"This disease is the result of a deranged digestive system. Keep animals only in warm, clean, well ventilated pens. Feed calves regularly, giving the milk in clean pails. Always remove the foam from the separated milk. Grain rations should be fed dry and immediately after the milk. This will prevent ear sucking, a custom among calves which often results in bloat and scouring, caused by taking air into the stomach.

The following remedies may be used. Eggs alone or mixed with flour; or a teaspoonful to a tablespoonful of dried blood to a feed of milk; or one-half ounce of formalin in 1½ ounces of water as a stock solution and feeding a teaspoonful of the solution to each pint of milk fed. A mixture of equal parts salol and bismuth subnitrate may be given in connection with and preceding the formalin treatment by placing one-fourth of a teaspoonful of this powder well back on the calf's tongue previous to feeding the milk containing the formalin." Complete directions for raising calves on skim milk are given in Missouri Agricultural Experiment Station Circular No 47, which may be secured by writing to Columbia.



A Concrete Dipping Tank That Is Easily Made and Very Effective.

cents a bushel; shorts \$26 a ton; oil meal \$36 a ton, tankage \$50 a ton.

From December 24 to March 23, Mr. Ashby had on feed five lots of fall pigs, each lot receiving somewhat different rations. Of these one lot was fed corn, shorts, and tankage, while a second lot was fed corn, shorts, and oil meal. The tankage fed lot made an average gain of 0.722 pound a day, and the oil meal lot 0.621 pound a day. The tankage fed lot made 100 pounds of gain for each 376 pounds of grain eaten, while the oil meal lot required 460 pounds of grain for each 100 pounds of gain. The feed cost of 100 pounds gain on the tankage lot was \$4.32 and on the oil meal lot was \$5.27.

Tankage is a product marketed by the packing houses and is obtained from animal carcasses—blood, meat scraps, etc. It contains 60 per cent of protein and from 15 to 17 per cent of mineral matter, while oil meal contains 31 to 33 per cent of protein and from 6 to 7 per cent of mineral. Min-

DIPPING HOGS TO CURE MANGE AND CONTROL VERMIN.

Treatment of hogs for mange should begin with a vigorous scrubbing with brush, soap, and soft water so as to remove the crust. A variety of coal tar dips are on the market. Most of these are quite satisfactory if of sufficient strength, and warm enough (about 110 degrees F. Do not boil.) The hog should be given a good thorough soaking in the dip, not less than two minutes. The hog must go under, head and all, at least once. Treatment must usually be repeated one or more times at intervals of eight days. Treat the whole herd and do it thoroughly.

While the hogs are taking the dip, thoroughly clean and then disinfect the pens. In case of true mange the fence posts, trees, and everything against which the hogs can rub must also be disinfected. Use a strong disinfectant and plenty of it. After

treatment do not put hogs back into lousy or mangy pens.

The illustration shows a concrete bath tub built in the ground at Winwood Farm, Pilot Knob, Mo., owned by T. C. Kimber. The tub is 14 feet long by two feet wide, by four feet deep, the exit runway sloping back six feet on the bottom. A cleated board helps the pigs get a footing when coming out. Mr. Kimber raises Large Yorkshire White hogs and gives them a bath every 10 days during the spring, summer and fall months to brighten their skins and to kill any vermin which may get into their ears and around their eyes. The little pigs get their first plunge at six weeks old. The wooden trough shown at left catches considerable of the drip which the hogs shake off as they come out, and after the hogs

BIGGER HOG PROFITS

Free Circular

"STAR" HOG OILER

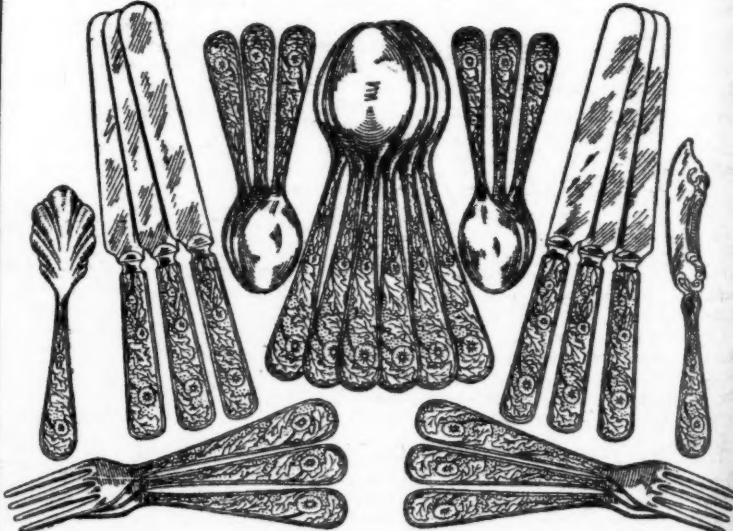
is most practical, economical, labor-saving device known. Gets to the hog in proper place. No work for you. Works automatically—so work pay-as-you-go.

Standard Chemical Mfg. Co., Dept. 16 Omaha, Neb.
Starbuck Mfg. Co., Dept. 16 Peoria, Ill.

FREE SILVERWARE

We have just received a fresh shipment of these beautiful 26-piece Electric Silver Sets from the factory. They won't last long. Send for your set today. We refund your money if you are not satisfied.

26-Piece Electric Silver Set



We Want You to Have a Set of This Silverware

We have in the past made many fine premium offers of silverware to readers of Colman's Rural World, but this is the first time we have ever been able to offer a complete electric Silver Set on such a liberal offer. And please don't think because we are giving away this splendid set on such liberal terms that it is the ordinary cheap silverware which is plated on a brass base and consequently changes color and has that "brassy" look just as soon as the plating wears off. This set which we offer you here is "plated on a white metal base, therefore each and every piece is the same color all the way through and will wear for years. As shown in the above illustration there are 26 pieces in this set—6 Knives, 6 Forks, 6 Teaspoons, 6 Tablespoons, Sugar Shell and Butter Knife. Each piece is full regulation size for family use, the handles are handsomely embossed and decorated with the beautiful Daisy design which is now so popular and the blades of the knives and bowls of the teaspoons and tablespoons are perfectly plain and bright polished.

It is only because we buy this set in large quantities direct from the factory that we are able to secure it at a price that enables us to make the remarkable offer below. It is by far the greatest value we have ever offered. We will send this beautiful 26-Piece Electric Silver Set exactly as illustrated and described to any address upon the terms of the following special offer.

We have sent hundreds of these 26-Piece Electric Silver Sets to our readers, and in every case the subscriber has been delighted beyond measure. We are so sure that this 26-Piece Electric Silver Set will please and satisfy you that we make this offer,—and if you are dissatisfied after you get the 26-Piece Electric Silver Set, we will refund your money, or send you another set. You know we couldn't make such an offer unless this 26-Piece is exactly as we represent it.

How To Get This 26-Piece Silver Set Free

Send us a one year's new or renewal subscription to Colman's Rural World at our special price of \$1.00 and 25 cents extra to help pay postage and packing charges on the 26-piece Electric Silver Set—total \$1.25, and the complete 26-Piece Silver Set will be sent you by return mail—all charges paid. If you cannot get a new subscription to Colman's Rural World just send us \$1.25 and we will add a one year's subscription to your own subscription to Colman's Rural World. This offer may not appear again. Remember, for \$1.25 you get Colman's Rural World one year, and in addition we send you the 26-Piece Electric Silver Set—all charges prepaid. Sign the coupon below today before this offer is withdrawn.

Sign This Coupon Today

Colman's Rural World,
St. Louis, Mo.

Enclosed find \$1.25 to pay for a one year's subscription to Colman's Rural World. It is understood that you are to send me the 26-Piece Electric Silver Set—all charges to be prepaid. If I find the 26-Piece Electric Silver Set is not better than you claim, I will return it to you, and you are to send me back my money.

Name State

P. O. State R. F. D.

THE HOME CIRCLE

AND THE KITCHEN

WILL TAKE THINGS AS THEY COME.

(Dedicated to the International Sunshine Society.)
The sun is bright, the day is fair
And birds are singing gay;
A balmy breeze is in the air
And nature smiles today;
But, way off in the western skies,
A little cloud is seen to rise—

Gets darker now and skies are gray,
For sun's behind a cloud;
A storm is now upon the way
And thunderpeals are loud,
The lightening flashes cross the sky
A tempest now is raging high.

Twill soon be o'er, 'twill soon be o'er,
And down since Adam's time
The changes come and evermore,
It can't be always fine.
We can't control the mighty sun
Or stop a rain that's bound to come.

A start in life is made and we
Feel sure we'll meet success,
The heart is light, our goal we see
And Heav'n seems to bless—
A mishap cometh o'er the way
And then, how gloomy seems the day!

We turn the corner at our right
And we're on Pleasant street,
And forget the troubles for delight
Our very eyes do meet.
I guess the mishaps make us see,
The blessings sent to you and me!

So, evermore as heretofore,
Twill rain or shine the sun—
Twon't ask our choice and we there-
fore

Will take things as they come.
If it rains upon our picnic day,
Why, we'll keep jolly anyway.

St. Louis. ALBERT E. VASSAR.

MAKE GRANDMA AND GRANDPA HAPPY ALL THE TIME.

To the Home Circle:—Somewhere the writer saw the following headline: "Make Grandma's Christmas Happy." I wondered why only at Christmas time and not all the time!

The word "grandma" usually insinuates age, and age calls for respect from the younger generation; add to it love and then we have the combination which makes an old or a young grandma happy.

Grandmas and grandpas may pass away because of that little word "age." We do not know how soon; therefore, we must make haste in giving them joy while we may. Their

The Home Circle is a meeting place for weekly gatherings of the Rural World family. All of its members are invited to meet here in confidence and good fellowship. Send lots of letters and get really acquainted.

The Kitchen is a factor in the Home Circle that no one can do without. Help to make it helpful by sending for publication suggestions on how to make and do the things that are made and done in the kitchen. Tell others your ideas and experiences.

joy shall be our joy after they have left us. We shall have an easy conscience, and be glad that we did our pleasurable duty to the very last.

Some day we too shall be grandmas or grandpas, and must set the example for our children as to our future treatment when that grandage arrives. "Do as we would be done by" counts here as everywhere else. We do not want our children to put us in a corner with the old-fashioned furniture for our mind is as bright and keen as ever, although the body may be wrinkled. We are sensitive and feel the slights heaped upon us by the thoughtless young. The silent suffering of the aged no one can fathom; they long for death "just to be out of the children's way."

Some one says: "Oh, grandma is cross;" if so, it is evident she needs the oil of love to smooth the way heartward. Love is the lubricant that performs miracles in age as in youth because it is "the universal language."

Be ever gentle with dear grandma. As a rule she is good and tender. Remember she is crowned with the wisdom of years while you, child, are a mere fledgeling.

In retrospect I see a dear, darling grandma, a black lace cap on her halo of white hair. I also see a little girl being punished by one or the other auntie, for holding her first finger crooked, while writing the next day's lesson. Dear grandma comes to the rescue with a piece of sugar, a fruit or other sweets, to counteract the aforesaid punishment.

Grandparents love us deeply, have worked and worried for us, perhaps grown somewhat sour in the treadmill of life—all the more reason to give the love that acts like soda in soured milk; the effervescence will show itself in the bubbling up of joy tears.

There are times when we would give anything to have our dear parents with us just once more to give them the love we withheld when they were with us. Can we ever repay the love and care that mother and grandmother bestowed on us, their anxious watching and waiting?

Some children say: "That was their duty." If so, it is now your duty to show appreciation.

Respect their habits and "set ways," for we too shall have them later on. Love them, they need our love as much as we need sunshine in the fields and meadows.

Come, join me in loving grandma, and grandpa, at Christmas time, and all the time, till Christmas comes again!—Claire V. D'Oench, St. Louis.

JACOB FAITH'S IDEA OF WOMEN.

To the Home Circle:—A good tempered woman is the light of life, the salvation of the world. What would this world be without her gentle, refining, noble influence? A woman's whole being is a bundle of affection. To love and be loved is her life's mission and makes the sum of her happiness. Like the flowers that adorn God's footstool, a good woman is like a sunny day shedding brightness that scatters the clouds of sorrow away. She is ever gentle, kind and affectionate. Be the night ever so dark and cold, it is hers to minister to the comfort, and care for the necessities of the members of her family and the whole human family is purified by the sweeteness of her affectionate devotion and the nobleness of her life.

The beauty of a woman is insignificant as compared with the charm she throws around the home by kindly, wifely and motherly affec-

tion, which is simply boundless to all who are the objects of her love. It is to her that friends come in seasons of sorrow or sickness, and a few words from her helpful heart and a sympathetic voice have often lifted a load of grief from souls bowed down with anguish.

How often has the husband gone home worn down with the pressure of business, feeling ill at ease with himself and irritable with the world generally, to have all removed the moment he reaches her presence and the happy surroundings provided by her wifely and motherly forethought and love. So with the rough and sometimes uncouth school boy who flies to his mother for refuge, and the little ones in their grief and trouble all find a haven of rest in her presence and within reach of her kindly voice and outstretched arms. And there are cleverer women than men think and more to follow just as soon as the opportunity is offered them to fill the positions calling for integrity, industry and ability.

I believe that few men live piously or die righteously without a wife in whose soulful spiritual nature is found the essence of purity, loveliness and virtue. On the one side we have the unclouded and unbounded cheerful welcome and on the other the soullessness and cheerlessness of unwelcome, loneliness and solitude. Man only begins to appreciate the value of woman as he grows in years and experience.

There is no friend like a mother; even when the world forsakes and despises, and kindred paint your faults so black that hardly a redeeming feature can be discovered, it is she who stays by and comforts you. Surely her name is more precious than gold, yes than much fine

THE FLIES' REVENGE.

Ten little flies
All in a line;
One got a swat!
Then there were.....

Nine little flies
Grimly sedate;
Licking their chops—
Swat! Then there were.....

Eight little flies
Raising some more—
Swat, swat; Swat, swat!
Then there were.....

Four little flies
Colored green-blue;
Swat! (Ain't it easy)
Then there were.....

Two little flies'
Dodged the civilian—
Early next day
There were a million!
—Buffalo News.

Swatting flies helps some, but not much. The best way to remove these carriers of typhoid and other diseases is to clean up their breeding places—piles of refuse about horse stables. Do it now, and enjoy a flyless summer.

gold. How many are today alive and with us who would have long since been on the other shore but for the sweet influence of women! When a poor girl is betrayed, she is driven from society; not so with her brutal betrayer who yet remains in honorable society. There is a deep wrong in this and tearful consequences, to our shame be it said.—Jacob Faith, Missouri.

It is just right, isn't it, that every baby born is just the sweetest one in the whole world?

Short Cuts for the Housewife

III. In the Kitchen

By Nettie E. Maxwell, University of Wisconsin.

THE arrangement of the kitchen equipment so as to eliminate unnecessary steps in the work of preparing meals is a very important matter to consider. The correct grouping of sink, table, stove and cupboards to save energy is worthy of serious thought.

In the modern home the kitchen is small, and is considered and treated as a workshop. There are many old homes with the equipment placed at the four sides of the walls, making miles of extra walking in the preparation of meals which could be very easily re-grouped to make the work lighter. In Bulletin 607, published by the United States Department of Agriculture, there are several illustrations of old kitchens rearranged.

A convenient arrangement to have over a table and within easy reach is a shelf with the utensils that are the most often used hanging underneath, and on the shelves condiments, salt and such other materials as are used in cooking.

Hang the spoons, measuring cups and small things within easy reach and always place them there.

When washing dishes, if the sink and table and within reaching distance of the cupboard the dishes may be placed on the shelves when wiped, thus saving one handling.

A large tray to carry dishes to and from the dining table is a great step saver, but better yet is the wheel tray. The first cost of this is rather large but the housewife might afford to indulge in one for its convenience can hardly be over-estimated.

A zinc covered table in the kitchen is another most desirable part of a well equipped kitchen. A zinc cover can be put on an ordinary pipe topped table at a cost of less than two dollars, and the saving of work in scrubbing is worth considering.

The zinc, table and stove should be such a height as to permit the person using them to work with comfort without stooping.

If you have a pine floor, do not wear out your life scrubbing it. Cover it with a good linoleum, which will cost about \$1.35 a square yard. If varnished once or twice a year it will last five or ten years with good care. If rugs are kept where standing, it will save the feet as well as the linoleum.

If the floor is of hard wood, have it finished so that it may be easily cleaned.

Do away, as fast as possible, with the heavy iron kettles and buy aluminum. There is no short cut in house work equal to the handy devices like a meat grinder, a bread and cake mixer, a good egg beater and cream whip, standard measuring cups and spoons, all insuring against waste of time and materials.

Corners are such hard places to keep clean that curved brass corners may be tacked in them. These tips may be bought at any hardware store.

Small dishes on gas burners are so apt to tip. A piece of wire netting placed on the burner is a great convenience.

Save time in washing spoons by keeping old teaspoons in the soda and baking powder cans.

When cooking eggs in the shell use an old flour sifter. They will cook in it and can be taken out quickly and all together.

Shears in the kitchen may be great savers of time. Use them to trim lettuce, cut raisins and figs, dress chicken, prepare grape fruit and many other uses may be discovered daily by the thinking housewife.

Don't waste time scrubbing a sink with scouring powder as kerosene will do the cleaning in half the time and not hurt the enamel.



Boudoir Cap, 10¢

This pretty boudoir cap for embroidery is stamped on white lawn. With a finishing touch of lace trimming edge and knots of ribbon this design makes a charming and dainty cap. Postpaid for only 10¢.

Century Mercantile Co., St. Louis, Mo.

Big Sleeping Doll FREE



This fine sleeping doll is nearly two feet tall, and is all the rage. She has slippers, complete underwear, stockings, etc. Dress is very prettily made, half length, and trimmed with lace; also has a little chatelaine with a pin. You can dress and undress this doll just like a real baby. Has curly hair, pearly teeth, rosy cheeks, beautiful eyes, and goes to sleep just as natural as life when you lay her down.

This doll free for selling only 20¢ our magnificent art and religious pictures at 10 cents each. We trust you with pictures until sold, and give an extra surprise gift for promptness.

PEOPLES SUPPLY CO., Dept. H. W.
St. Louis, Mo.

PATTERNS FOR RURAL WORLD READERS.



In ordering patterns for waist, give bust measure only; for skirts, give waist measure only; for children, give age only; while for patterns for aprons say, large, small or medium.

716. Girls' Underwaist and Drawers.
Cut in five sizes: 4, 6, 8, 10 and 12 years. It requires $\frac{3}{4}$ yard of 36-inch material for the waist and 1 yard for the drawers for a 6-year size.

1109. Girls' Dress With Guimpe.
Cut in four sizes: 6, 8, 10 and 12 years. It requires $\frac{3}{4}$ yards of 40-inch material for a 12-year size, for the dress, and $\frac{1}{2}$ yards for the guimpe of 27-inch material.

1001. Boys' Suit With Knickerbockers.
Cut in four sizes: 3, 4, 5 and 6 years. It requires 3 yards of 44-inch material for a 5-year size.

1332. Girls' Dress With or Without Over Blouse.
Cut in four sizes: 10, 12, 14 and 16 years. It requires 8 yards of 24-inch material for a 14-year size.

9925. Girls' Dress.
Cut in four sizes: 6, 8, 10 and 12 years. It requires 4 yards of 36-inch material for a 6-year size.

1179. Ladies' Night Dress.
Cut in three sizes: Small, medium

and large. It requires $5\frac{1}{2}$ yards of 36-inch material for a medium size.

1333. Ladies' Costume, With or Without Bolero, and Panel Trimming.

Cut in six sizes: 34, 36, 38, 40, 42, 44 inches bust measure. It requires 7 $\frac{1}{2}$ yards of 44-inch material for the entire dress in a 36-inch size. Bolero and panel trimming in different material will require $2\frac{1}{2}$ yards. The skirt measures about 22-3 yards at the foot in a 26-inch size.

1085. Ladies' Apron.

Cut in three sizes: Small, medium and large. It requires $5\frac{1}{2}$ yards of 36-inch material for a medium size.

9608. Ladies' House Dress.

Cut in six sizes: 32, 34, 36, 38, 40 and 42 inches bust measure. It requires 7 yards of 36-inch material for a 36-inch size.

1309. Ladies' Corset Cover, Cap and Negligee.

Cut in three sizes: Small, medium and large. It requires $1\frac{1}{2}$ yards of 27-inch material for the corset cover, $\frac{1}{4}$ yard for the cap, and $2\frac{1}{2}$ yards for the sack, for a medium size.

1328-1321. Ladies' Costume.

Waist No. 1328 is cut in six sizes:

34, 36, 38, 40, 42 and 44 inches bust

THE MERRY GAME CLUB FOR OUR Boys & Girls

Conducted by the President—Essie-lyn Dale Nichols, 1527 35th St., Rock Island, Illinois.

Dear Children:—Our first game for this week was sent in by Lee Phillips, of Fall Branch, Tennessee, who has been proving himself a dandy little club member. Lee's game is called: "Take Home What You Borrow."

Take Home What You Borrow.

(Described by Lee Phillips.)

The players all sit in a row except two who act as "leaders" or "beginners." The first "leader" goes to each player in turn and whispers a name, (the funnier the name the funnier the game, Lee says). These names may be anything the "leader" chances to think of, such as, cow, steam-shovel, bean-pot, button-hook, etc. The second "leader" then tells each player (in whispers) who to take and whom to take it to. For example: Kate and Tom and Ruth are the names of three players in the game; the first "leader" goes to Kate and names her "borrowings" beans; the second "leader" then tells Kate to take Tom to Ruth, so when the two "leaders" have finished their part of the game (giving names and telling who to take and whom to take it to), Kate gets up from her seat, takes Tom by the hand, leads him to Ruth and says: "Ruth, I have brought home your beans." All the players follow suit, only of course they choose different players and have different names.

Lee—I used to play this game when I was a little girl and I think it a very laughable game. I will send you a prize soon. Our next prize game was sent in by Cora Morris, of Hartsville, Ala.; whose game is called: "Birds Fly."

Birds Fly.

(Described by Cora Morris.)

Each player places a finger on the table which (finger) must be raised when the conductor of the game says: "Birds fly, pigeons fly, ducks fly," etc. If the conductor names any creature without wings such as: "Horses fly," or "dogs fly," etc., and any player thoughtlessly raises a finger that player must pay a forfeit, as must also be done if a player omits to raise a finger when a winged creature is named.

Cora—I have printed your game almost exactly as you wrote it, which is quite a compliment to a 12-year-old girl. "Birds fly" is something like "Thumbs up," isn't it? I will send you a prize real soon. Our next prize game was sent in by Fred Powers, of

measure. Skirt No. 1321 is cut in six sizes: 22, 24, 26, 28, 30 and 32 inches waist measure. It requires $5\frac{1}{2}$ yards of 44-inch material for a medium size, for the skirt and waist. This calls for two separate patterns, 10c for each pattern.

9937. Ladies' Corset Cover With Pepper-lum.

Cut in seven sizes: 32, 34, 36, 38, 40, 42 and 44 inches bust measure. It requires 2 yards of 27-inch material for a 36-inch size.

These patterns will be sent to RURAL WORLD subscribers for 10 cents each (silver or stamps).

If you want more than one pattern, send 10 cents for each, additional pattern desired.

Fill out this coupon and send it to COLMAN'S RURAL WORLD, 718 Lucas Ave., St. Louis, Mo.:

Pattern No. Size Years

Bust in. Waist in.

Name

Address

Health Springs, S. C., whose game is called: "Old Mollie Bright."

Old Mollie Bright.

(Described by Fred Powers.)

The players all stand in a ring except one who is "Old Mollie Bright." Old Mollie Bright stands in an imaginary ring some distance from the other players. The players in the ring call out: "How far is it to old Mollie Bright?" Old Mollie Bright answers: "Three score miles and ten." The players say: "Can we get there by candle light?" and old Mollie Bright answers: "If your legs are long and slim enough and the witches do not catch you on the way." The players then all start to run for old Mollie Bright's ring and old Mollie Bright tries to catch them. The ones she catches must go with her to the other ring and the same thing is repeated until all the players are caught. The first one caught must be old Mollie Bright next game.

Fred—I will send you a prize for this game shortly. Our next prize game was sent in by George Carson, of Akron, O., whose game is called: "The Slippery Slipper."

The Slippery Slipper.

(Described by George Carson.)

The players sit in a circle on the floor or on the ground. One of the players is "it" and sits in the center of the circle blindfolded. A slipper is passed around the circle and every once in awhile one of the players tap on the floor with it. If a player is caught with the slipper that player must be "it."

George—The Slippery Slipper must be quite a game. I will send you a prize soon.

Ruby Irwin—I printed "Poor Little White Kitty" last week, which is the same as "Poor Kitty." But as our latest rule is to send all of our little game senders a prize for their trouble, I will send you a prize for "Poor Kitty," although I cannot print it.

Lillie Shermons—I would like to print your story, "A Great Crusher," because it is very nice; but at the present time we haven't room to print stories, so I will just keep your story and maybe sometime in the near future we will have room and then I will take great pleasure in printing it.

Now, good bye, children, until next week.

LITTLE RETURNS WHEN BORROWING GOES ON FOREVER.

(Continued from Page 12.)
bodkins, darning needles changed hands frequently.

Then a change came. Not so much the household articles as groceries and money were requisitioned. We were poorer than ever, but the way demands were made would indicate we were wealthy.

While mother was willing to oblige even at personal discomfort, she never borrowed or permitted any of her family to do so. One of the worst scoldings ever given me came when a girl sent after a story she had loaned me. Once I came home in a heavy rain, wearing another's rain coat, and the storm was barely over when a messenger was called and the rubber returned.—Mrs. M. H. Menaugh, St. Louis.



This beautiful Bracelet is all the rage. Adjustable to any size wrist, gold plated throughout. Engraved links. Set with fancy engraved beaded ornament with large rose stone. Ring is set with 3 brilliants. Very handsome. Free for selling only 20 of our magnificent art and religious pictures at 10c each. We trust you with pictures until paid, and give extra gift of 40 beautiful postcards for payment. Send name today.

People's Supply Co., Dept. R.W. 716 Lucas Ave., St. Louis.

BABY CAP
10 Cents



Century Mercantile Co., St. Louis, Mo.

The Blood of His Ancestors

By Vaughan Kester

(Copyright, 1915. The Bobbs-Merrill Co.)

(Continued from last week.)

NORTON had been with Bliss, Haviland and Company three years, when he made a little discovery. Haviland was speculating—in direct violation of his agreement with the company.

John had been in possession of this secret about five weeks when one morning he was summoned into the private office. He found Haviland looking rather disturbed.

"We'll have to be getting at our annual report," the managing director said. "Let me see—this is the eighth of the month; I suppose you already have it well along."

"I've been at work on the books for the last two weeks."

"Make a full and complete showing, Norton."

"Yes, sir."

At eleven o'clock Haviland left the office hurriedly in response to a telephone message.

Half an hour later a spruce-looking youth with a small paper parcel under his arm walked into the business office and inquired for him. John went over to the railing where he stood.

"Mr. Haviland's out; can I do anything for you?"

"I am from Brown and Kemper," mentioning a well-known firm of brokers. "I want to leave these bonds for Mr. Haviland." He untied the parcel as he spoke. "Will you take their numbers and give me a receipt?"

John was too dazed to speak. Not only was Haviland speculating, but he was speculating with the funds of the company. He was vainly endeavoring to collect his scattered wits when Haviland came in, panting and in hot haste. He gave the broker's clerk a shove that sent him spinning toward the wall, then with a single furious ejaculation he snatched up the bonds and disappeared into his private office.

During the next two or three days John in fancy lived through all the agony of an unsuccessful search for another position, and at last awoke to a proper understanding of the case. Haviland was afraid to dismiss him.

The directors' meeting was called for the twenty-ninth, and late in the afternoon of the twenty-fourth, as John was closing his desk, Haviland came out of the private office and strode to his side.

"I want you to come up to my house tonight, Norton; it's about that statement I want to see you. Can you come?"

John did not look at Haviland; he felt embarrassed and ill at ease. They had avoided each other for days.

"I am sorry to bother you, Norton. Won't you come up to dinner? I am all alone."

"No," hastily. "I guess I'd better not; my wife will be expecting me."

"Just as you like. I can look for you about eight?"

"Yes."

Haviland moved away a step. He was mopping his face with his handkerchief. He seemed old and broken. His aggressive arrogance of manner had entirely deserted him.

"Everything was all right today?" he inquired aimlessly.

"I think so."

"Then I'll look for you at eight." Haviland turned and went slowly into the private office. As John passed the door on his way out he caught a glimpse of the managing director; he was sitting with his elbows resting on his desk and his chin sunk in his hands.

When John mounted the steps at Haviland's that night, it was with a good deal of reluctance. The butler admitted him and showed him into the library, where Haviland welcomed him with an effusive cordiality that only served to increase his desire to escape from the house. A table stood in the center of the room, with cigars

and decanters on it. Haviland had evidently been drinking; his face was flushed and his manner confident. John put aside the glass he pushed toward him.

"I'll have a cigar, if you don't mind—thanks."

Haviland leaned back in his chair. "Well, how's the statement coming on? The business makes a pretty good showing, eh?"

"It's been the biggest year in the history of the house."

"If they'd let me alone, I'd make Bliss, Haviland and Company a power, with something of his old self-assertiveness. "But they don't see it my way."

John looked his assent. Haviland filled his glass.

"You won't join me?"

"No, I thank you."

"I am going to have your salary put back to the old figure, Norton. I'll have to get the directors' consent, but you can tell your wife when you go home that you have a raise to twenty-five hundred." He turned expectantly toward his bookkeeper; he was counting on enthusiasm—gratitude, even, but he saw no trace of either on John's face.

Their relations had undergone a great change. Haviland was no longer the despot John had known in the private office; he no longer inspired fear; he never could again. He was simply a red-faced vulgar man who was seeking to bribe an employee to betray his business associates. John had brooded over the possibilities of this interview; he had thought of the sarcasms he would hurl in his tyrant's face—but the tyrant was no longer a tyrant, he was only a guilty man, more or less pathetic to look upon, as guilty men are apt to be when retribution is in sight.

To cover his losses, Haviland had taken almost half a million dollars from the company, consequently the necessity for a statement that would satisfy the directors and leave no room for inconvenient questioning was imperative. Provided it was forthcoming, it would give him a year in which to return all the securities he had hypothecated. Personally, he felt quite safe; he had gone deep enough into the funds of the company while he was about it to protect himself effectually—at the worst he could always effect a compromise. He could turn over his property; carefully handled, it would easily reach half a million, and there was his stock in the concern besides. But he had no notion of compromising if he could help it, for what would he do without money, his credit and reputation gone! He grew sick. It all rested with the bookkeeper, who promised to be difficult to manipulate. He silently added five thousand dollars to the sum he was willing to offer as a last recourse. He cleared his throat.

"Now about that report, Norton; I suppose you will want my help tomorrow."

John looked distressed.

Haviland hitched his chair nearer and dropped his voice to a confidential whisper.

"You know how busy I am—you are ready to sign that statement—what's the use?"

With a calmness he was conscious he did not feel, John took the cigar from between his teeth and said slowly:

"I am not so sure about that."

Haviland looked at him blankly for a moment. He laughed shortly, and remarked: "I guess you are not such a fool, after all."

He drew his check book from his pocket, took a pen from the table, and dipped it in the ink, dated a check and signed it.

"For what amount shall I make it, Norton?" The pen hovered above the blank space on the check.

John shook his head.

"No," doggedly. "I can't do it—I'm sorry for you, but I can't. What's the use?—it will be about as hard on me as on you—I'll lose my place."

But Haviland was not heeding him.

"If I make it ten thousand, will that satisfy you?"

It was John's turn to look blank. Ten thousand dollars! He turned faint and giddy; he tried to speak; he saw the pen circle and then sweep down toward the check. He put out

his hand and caught Haviland by the wrist.

"No, don't!" he gasped.

"Shall I make it fifteen thousand?"

"No." And this time there was no irresolution.

Haviland groaned aloud; the sweat clung in beads to his forehead. He rose from his chair.

"I am offering you fifteen thousand dollars for the stroke of your pen—if it is not enough, name your own price," he added hoarsely.

"I can't do it."

"Do you mean that you won't come to terms?"

"Yes."

"Why?" His face was livid.

"Bedause I can't do what you ask of me—I can't shield you, and I can't take your money. I don't suppose you understand—it wouldn't do me any good—I should feel as though I had robbed some one—I could never tell my wife how I got the money; there would always be that between us. I'll finish what I can of the statement tomorrow and hand in my resignation."

As he spoke he came slowly to his feet.

(Concluded Next Week.)

MOSQUITO BITES.

No one is especially fond of mosquito bites, or at least we have not learned of such a person. In fact, the irritation from mosquito bites is often intense. The pain may be relieved by wetting the affected area with diluted ammonia, the ordinary "household ammonia" answering the purpose very well. But why the continued annual torment of mosquitoes? These pests do not fly far from their birth place which is some collection of stagnant water. This need not be in a pond or swamp, in fact, it is more often in rain barrels, open cisterns, tin cans, broken crockery, small pools, depressions in eaves, or any other place where a few "wrigglers" may exist for a few days. It is far more satisfactory to prevent the mosquitoes from breeding around the home than to be everlasting fighting mosquitoes and doctoring their bites.

Fish, if kept in any small ponds about the premises, will keep them free from mosquitoes. Tin cans and other rubbish should be cleaned up, wet, damp places drained, rain barrels and cisterns covered, and pools covered with a film of kerosene. A very small quantity of kerosene is sufficient to kill the mosquitoes.

Poultry Raising for Fun & Profit

MAKING A REAL PROFIT FROM COCKERELS.

I doubt if any farmers raise cockerels because they want to raise them. There is usually little or no profit made from cockerels, but the farmer has to have pullets for his next winter's layers and in the process of raising them he, sooner or later, finds that at least half of them are cockerels. Cockerels can't lay eggs, so they usually have to be sold in the fall for less than it cost to raise them.

But there is no good reason why this should be so. The cockerel end of the poultry business can be made very profitable if the poultry raiser cares to make the effort. Cockerels are not profitable to raise, but a very simple operation will change them into capons, and capons are profitable.

The farmer receives about 12 or 14 cents per pound for his cockerels when he markets them in the fall. On an average, the cockerels do not weigh over four pounds each; sometimes not that much. Thus if the farmer has 100 cockerels to market, he gets about \$50 for them. Fifty dollars for his trouble in hatching and raising them, and after deducting the cost of feeding 100 cockerels with an

TRAY 18 INCH OVAL 10c

This pretty tray is stained on white and lined. Size 12x18 inches. We include with each tray an eight page embroidery booklet illustrated with all the principal stitches in embroidery, with description of each stitch. All sent postpaid for 10c. Century Mercantile Co., St. Louis, Mo.

LOCKET AND RING FREE

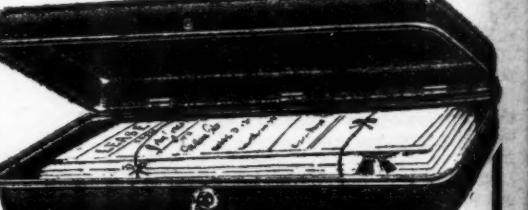
Gold plated Locket, 22-inch Chain. Set with beautiful brilliants. Very handsome. Free for selling only 10 large art and religious pictures at 10c each. Gold filled Ring, set with 3 brilliants, given for promptness. We trust you with pictures until sold, and give an extra gift for promptness. Send name today. People's Supply Co., Dept. RW 716 Lucas Ave., St. Louis.

FREE This Steel Document Box

Made of Bessemer Steel. Fire and Burglar Proof. Sent Anywhere in the U. S. Prepaid

Every person needs a Strong, Steel Lock Box of this kind. Deeds, Mortgages, Bonds, Notes, Insurance Policies and Private Papers are too valuable to have pigeon-holed loosely about the house. Even though you keep them permanently in a safe deposit vault, it is dangerous to carry them loosely in your pocket to and from the bank.

This Steel Document Box is constructed of Bessemer steel and heavily coated with black enamel. You can't cut it with an ax. Lid fits closely into a grooved edge on the bottom half. Hinges are on inside. It locks with an individual key and just fits your coat pocket. Size 11 in. long, 5 in. wide by 2 in. deep. It Insures Safety and Saves Time and Worry. You should not let your papers go unprotected another minute. Send for the box at once.



Our FREE Steel Document Box Offer

Send us 75 cents and we will extend your subscription six months to Colman's Rural World, and also send you a great big weekly paper for a full year, called "Our Country," which is the weekly edition of a famous daily paper, and we will forward immediately prepaid and Free the Steel Document Box shown above.

Fill in this Coupon and Mail Now For Free Document Box.

Address **COLMAN'S RURAL WORLD, St. Louis, Mo.**

COLMAN'S RURAL WORLD, St. Louis, Mo.

Gentlemen—Enclosed please find 75 cents, for which extend my subscription six months to Colman's Rural World, and send me "Our Country" one full year, and the Steel Document Box, prepaid.

Name
St. No. P. O. Box
R. F. D.

Town
State

inimitable hunger a whole summer, how much has he left? I asked myself that question after I had raised about 200 cockerels one summer and felt ashamed at the answer. For my trouble in hatching and for working like a fool all summer raising 200 cockerels, I had just \$4. Two cents each! I did not stop hatching cockerels—to do so would be an impossibility if one wants pullets—but I stopped raising them. I now raise capons and find they pay me a larger profit every year.

It is not hard to caponize cockerels, but the operation cannot be learned from anyone else. The only way to learn is by experience. With a good set of instruments and by following the directions that come with them, and with a little practice, anybody can master the art of caponizing. A set of instruments cost only a few dollars. The cockerels should be caponized when about three months old.

The demand for capons always exceeds the supply, so there is always a good market for them. The price per pound paid for capons is nearly twice that obtained for cockerels, and a capon of the same age will weigh nearly twice as much as a cockerel. With a little figuring and by remembering that it costs no more to raise a capon than a cockerel, anyone can see why it pays to caponize.—J. A. Reid, Pennsylvania.

BOURBON RED TURKEYS—DESCRIPTION AND VALUE.

The Bourbon Red turkey is the newest of all the turkey breeds. Turkey lore has it that they originated between 15 and 20 years ago. Mr. Barber, of Bourbon county, Kentucky, was one of the first breeders, producing a fowl similar to the buff turkeys of that day, but with the main wing and center tail feathers white instead of buff. The color was also more of a brownish than buff. However, I do not believe that a large per cent of the Bourbon Red turkeys in the country today are of this strain. It is the opinion of poultry men that they are largely a "made up" breed.

The first exhibition of Bourbon Reds was made at the World's Fair in St. Louis in 1904. This was followed by the organization of the National Bourbon Red Turkey Club, and since that time Bourbon Reds have been admitted to the American Standard of Perfection, the recognized authority by which all standard breeds are judged.

Some of the points in favor of the breed are:

Beautiful markings and stately carriage, making them a highly ornamental bird.

Color: Deep brownish-red with main feathers and center tail feathers white.

Weight: Not overly large, but best size to be found. The standard weights are: Cock, 30 pounds; hen, 18 pounds; cockerel, 22 pounds; pullet, 14 pounds. Are rapid growers.

Gentle and quiet in disposition, not inclined to wander away.

Their round plump carcasses which are free from black pin feathers make them an attractive market fowl when dressed.

The hens are excellent layers and good mothers, and the pullets are easily reared. The breed is hardy. They have been known to thrive when whole flocks of other breeds in the same neighborhood have succumbed to disease.

They are a money maker for the market poultryman and for the breeder, for they have a combination of good qualities not possessed by any other breed, and are gaining in favor.

Because of the newness of the breed, the demand for eggs and stock is much greater than the present supply, and breeders find buyers ready to take all the stock they can produce at good prices.—B. L. Evans, Indiana.

CARE OF YOUNG TURKEYS.

I could never keep my young turkeys at home, so I tried a new way last year, and it worked so well that I thought someone else would like to try it.

The turkey hen cannot be confined in a small pen with her turks like a Mrs. F. Fox, Ohio.

chicken can, and if one builds yards for them they will fly over. So last spring I made a pen by taking four corner posts about two feet high and nailing a board on each side to make a square pen about ten feet square. At first I only had it about ten inches high, and when the turkeys were ready to leave the nest I put them in the pen. The young ones could not get out, and of course, the old one would not leave them. In that way the old one was not confined so close that she could not get out and eat whenever she pleased.

The pen was moved every day so that they were on fresh ground all the time, as turkeys will not thrive in filth. I fed them corn bread and rolled oats and cottage cheese about five times a day for about a week, being careful to feed just what they would clear up quickly. As the young turkeys got able to jump over the pen I put on another board. After they were a week old I let them out part of the day, watching to see that they did not wander too far away and shutting them up as soon as they started away from the yard too far. After two weeks I left them out all day, but fed them in the pen, putting a brick under one corner to raise it up so they could go in. By not feeding them outside the pen they learned that when they wanted feed they had to go to the pen. At first they came for feed several times a day, but as they got larger and insects more plentiful they did not come so often until now at four weeks they only come to feed morning and night. They always roost near the yard, and any time through the day if I go out and call they will come.—T. F. Minnesota.

The demand for capons always exceeds the supply, so there is always a good market for them. The price per pound paid for capons is nearly twice that obtained for cockerels, and a capon of the same age will weigh nearly twice as much as a cockerel. With a little figuring and by remembering that it costs no more to raise a capon than a cockerel, anyone can see why it pays to caponize.—J. A. Reid, Pennsylvania.

TO RECOGNIZE DISEASES.

Consumption—Wasting and weakening of the body, may be accompanied by foetid diarrhoea. The breathing may be somewhat rasping, and there is paleness of the comb and wattles.

Corns—Hardened and thickened cuticle of the sole of the foot, due to narrow perches, alighting from high perches or hard floor, pressure of imbedded pebble.

Crop-bound—Impaction and enlargement of the crop from gorging or stoppage.

Depraved Appetite—Gorging with food, or swallowing substance unsuitable to the digestive tract, causing indigestion or stoppage. May result from lack of grit.

Diarrhoea—Looseness of the bowels, caused by sudden chilling or digestive disorders.

Diphtheria—See roup.

Dysentery—Excessive and persistent diarrhoea, due usually to filthy food or drink or foul conditions.

Eczema—White pimples show on wattle, increase in size, run together, discharge and become crusted.

Enteritis—Inflamed condition of the mucous lining of the stomach and intestines, resulting from acute diarrhoea, and caused by poison, internal parasites, over-eating, fermented food, condiments, filthy drinking water, especially liable to attack growing chickens and moulting fowls.

Eversion—Protusion of the inflamed oviduct from the vent may result from straining in laying an egg which is malformed, extra large, or broken within the oviduct or cloaca.

DAY-OLD CHICKS.

When day-old chicks arrive that you have purchased from a distance, and maybe have been traveling 12 hours, put them carefully and gently into a nicely-warmed (this is important) foster-mother, the inside and outside chamber floors being thickly sprinkled with fresh-cut chaff. Leave them alone for half an hour, when place before them a shallow dish of cold milk and one of a mixture of one of the dry chick foods, in which mix a little dry bran and fine grit and shell; also a little medium oatmeal. They will quickly stretch themselves, and you will find them eating and drinking gaily and no dead chicks in the morning. I have had some that traveled for 16 hours and never lost one by this plan, and others may find it useful. The warmth and rest seems to me the great thing to remember.

BEEKEEPING

HAVE BEES ON EVERY FARM.

Every farmer should raise bees. According to George A. Dean, professor of entomology in the Kansas State Agricultural College, bees are easier to care for than chickens and yield much better returns on the investment. Children in their teens can care for bees and will enjoy doing it. From eight to 15 colonies are the right number for the average farmer, 10 being usually preferable to a larger number, and still fewer being desirable to start with. For the ordinary farmer, bees should be regarded as a necessary sideline just as chickens are or as fruit is in many parts of the country. The equipment cost for five colonies of bees is about \$50.

Alfalfa offers one of the best honey-making materials. Alsike is also valuable, as is sweet clover. To fruit growing bees are practically essen-

tial because of the aid they give in pollination. This is the case particularly with the apple. The basswood tree makes excellent honey. Most farmers who raise bees do not plant specific bee pastures, though there are a few of these in the country, chiefly of buckwheat or alsike.

Do not sell eggs from stolen nests. Use them at home.

Coarse, sharp gravel supply the hens with "teeth." In the absence of gravel, coarsely ground oyster shells will answer the same purpose.

See that your chicks have plenty of sunlight and fresh air. Often muslin can be substituted for glass in part of the windows.

CENTERPIECE 10c

This beautiful centerpiece for outline embroidery is stamped on Mexican Ecru Cloth. You may have your choice of the following designs: Rose, Wild Rose, Peony, Forget-Me-Not, Daisy, Poppy or Violet. Any one cent postage for only 10c.



Century Mercantile Co., St. Louis, Mo.

Farmers' Classified Department

70,000 PAID CIRCULATION

RATE ONLY TWO CENTS A WORD

Colman's Rural World has a family of over 70,000 paid subscribers every week. This means that at least 350,000 farm folks are readers of these columns. Figure the cost of sending each of these readers a personal letter each week and then compare that cost with the low rate at which you can reach them ALL through the Classified Columns below. Count up the words in your advertisement, including initials and numbers which count as words, and multiply by two and you will quickly appreciate how low the cost is to reach these 70,000 buyers every week. No advertisement less than 10 cents accepted—and no fakes under any circumstances. Cash must accompany all orders.

ADDRESS,

Colman's Rural World Advertising Department 718 Lucas Av., St. Louis, Mo.

RELIABLE POULTRY BREEDERS

Barred Rocks.

EGGS—Barred Plymouth Rock—\$4 per 100. H. F. Masters, Arlington, Neb.

EGGS from pure-bred "Thompson Ringlet" Barred Plymouth Rocks \$1.25 per setting postpaid. Mrs. Edgar Nance, Republic, Mo.

FANCY Barred Rock eggs, \$1.50 and \$2.50 for 15. E. H. Thompson Ringlet strain exclusively. Fifteen years' experience breeding Barred Rocks. Prompt service. Satisfaction guaranteed. J. H. Hart, Thomasville, Ill.

Plymouth Rocks.

BIG PRIZE-WINNING White Plymouth Rocks. Never defeated. Eggs, \$1.25 per 15; \$3.00 per 45. W. W. Liebhart, Nemaha, Neb.

Leghorns.

ONE HUNDRED, S. C. Brown Leghorn eggs, three dollars. Great egg strain. Mrs. F. P. Browning, Appleton City, Mo.

S. C. WHITE LEGHORNS, took first prize 1914; 17 eggs, \$1. Satisfaction guaranteed. Chas. S. Dobson, Osborn, Mo.

SINGLE COMB BROWN LEGHORNS—Eggs, 75¢ for 15; \$2.50 for 100. W. H. Wilson, Route 1, Box 99, Warsaw, Mo.

Orpingtons.

VIGOROUS FARM-RAISED Buff Orpington chicks for sale. Mrs. L. A. Poteet, Richlands, Mo.

Rhode Island Reds.

S. C. RED EGGS, 2 pens. Catalog free. Thos. Troughton, R., Wetmore, Kan.

SINGLE COMB RED eggs; stock from prize winners; 85 per cent fertility guaranteed; 15, 75¢; 100, \$4.00. Mrs. Jno. White-lawrence, Lawrence, Kan.

ROSE AND SINGLE COMB Rhode Island Reds. Big boned, dark, velvety red. Trap-nested and bred to lay. Sell cockerels cheap from the finest strain and best blood lines. Eggs in season at a low price. Ave. Poultry Yards, Ava, Mo.

Several Varieties.

TURKEY EGGS, Mammoth Bronze, Bourbon Reds, Narragansett and White Holland. \$3.50 per 12. Yours for an honest deal. Walter Brod, Powhatan Point, Ohio.

EGGS! EGGS! From thoroughbred turkeys, geese Muscovy, Rouen, Pekin and Runner ducks; pearl and white guineas; guinea; white buff and barred Plymouth Rocks, Holland, Wyandottes, Hamburg, Leghorns, Orpingtons, Cochins, Langshans, White and silver laced Wyandottes, Rhode Island Reds. Hen eggs, 15 for \$1.00. Also, rabbits, hares and fancy pigeons. Write for free circular. D. L. Bruen, Platte Center Neb.

Wyandottes.

COLUMBIAN WYANDOTTES—Eggs, \$1 setting, \$5.50 per hundred. Fancy pigeons. J. J. Paula, Hillsboro, Kan.

POULTRY.

Guineas.

WHITE GUINEAS, \$2 per pair. Eggs, \$1.50 per fifteen. Mrs. F. E. Wentz, Burlington, Kan.

SEED AND NURSERY STOCK.

WHIP PEAS, \$2 a bushel. F. Glessner, Lutherville, Ark.

SUDAN SEED, free from Johnson grass, 20 lb.; 50 lbs., \$5.00; 100 lbs., \$13.00. Dr. Ballinger, Lubbock, Tex.

WHITPOORWILL, New Era, Black and mixed peas delivered your station. Write for special prices. B. S. W. McCullar, Booneville, Mississippi.

PURE SUDAN SEED—Free of Johnson grass; 10 pounds, \$2.50 postpaid, by grower on experimental farm. G. H. Branham, Slidell, Texas.

HELP WANTED.

THOUSANDS JOBS open to men—women. \$75 month. Vacation. Short hours. Steady work. Common education sufficient. Write immediately for list U. S. Government positions now obtainable. Franklin Institute, Dept. W. 167, Rochester, N. Y.

FARMS AND LANDS.

LITTLE RIVER VALLEY LANDS—Rich and cheap, on railroad. Robert Sessions, Winthrop, Ark.

8,000-ACRE RANCH FOR SALE at one-half value. Quick! Snap! one mile off railroad. Address owner, A. J. Johnston, 222 Landers Bldg., Springfield, Mo.

BEES AND HONEY.

BEST QUALITY new clover honey, 30-lb. can, \$3.45, two or more cans, \$3.00 each. Sample 10c. Price list free. M. V. Facy, Preston, Minn.

PATENTS.

PATENTS SECURED or fee returned. Send sketch for free search and report. Latest complete patent book free. George F. Kimmel, 230 Barrister Building, Washington, D. C.

BUSINESS OPPORTUNITY.

FREE FOR SIX MONTHS—My special offer to introduce my magazine "Investing for Profit." It is worth \$10 a copy to anyone who has been getting poorer while the rich, richer. It demonstrates the real earning power of money, and shows how anyone, no matter how poor, can acquire riches. Investing for Profit is the only progressive financial journal published. It shows how \$100 grows to \$2,200. Write now and I'll send it six months free. H. L. Barber, 477-28 W. Jackson Blvd., Chicago.

MISCELLANEOUS.

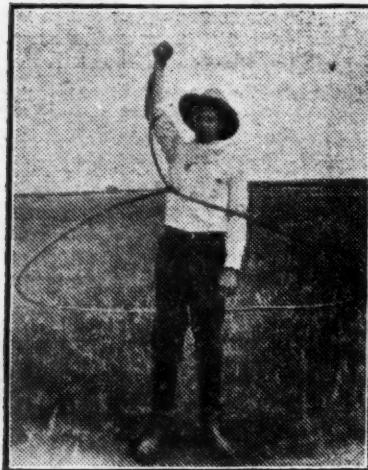
FREE! 20 beautiful postcards, if you pay the postage, 4 cents. Fred King, Sunnyside, Wash.

FOR SALE—Thrashing outfit cheap, if taken soon. Nearly new. Harry Dyck, Moundridge, Kans.

EXPERIENCED TEACHER will write your letters on any subject, \$10 up. Will also teach letter-writing, six lessons, \$1.00. Box 453, Palo Alto, Cal.

Nuggets and Notions

In Agriculture
By "Observer."



Doing Stunts With a Lasso.

THE English are conducting an egg-laying contest with the usual English thoroughness. They grade the eggs and place a value on the output. Such procedure is going to turn some results around about.

It is asserted that the gigantic Gibraltar onion has been grown to four pounds. All onions are "stong," but this is a "heavy-weight."

If you intend to use coal ashes on the soil, sift out the cinders. They do no good and are much in the way. Some soils need the loosening effect of coal ashes, but be careful about overdoing the application for fear you injure the capacity for holding moisture.

Watch the wind and spray the proper side of the trees at the proper time. Unlike the sailor, the sprayer can not "tack."

In certain regions the blight is getting the Kieffer pear these latter days. The greatest danger to the whole world lies in the development of fungi.

We are still hearing how the peelings of potatoes produce as good tubers as the whole seed. This seems contrary to what we should expect, since in all plants an early start, such as is set up by abundant starch in the whole potato, is a large factor of the successful growth subsequently.

Among the rural credits system it seems fairly agreed that Wisconsin has the best. Even Kansas admits this.

Liming and inoculating land for alfalfa seems to develop their benefit largely in the root system and thereby to add to the humus of the crop. After the field is freed of its alfalfa these added expenses are returned.

One experimenter again says that asparagus plants grown in place from the seed are finally and quickly more vigorous and productive than those transplanted. The demand now for the green tips is greater than that for those blanched. It was not always so.

The consensus of experience is that if silage be fed lightly at first to mules and horses it may be increased later without bad effect, if it be free from mold.

It is the large vegetables and fruits that sell, so that every effort should be made to grow the best. The city consumers are getting very fastidious. Reserve small specimens for canning and be sure to have a canner. But growing only large specimens is better.

Quassia, the principle found in the well known bitter of quassia wood, is likely to replace the nicotine sprays for small pests. It makes the leaves bitter.

One man reports thinning sparrows by baiting to a certain spot for a while and then mixing strichnine-soaked corn suddenly into the mass. This procedure of baiting and poisoning is really the most ready and successful method of getting rid of rats, mice, and other pests.

If you have well-rotted stable manure you need not use nitrate of soda as a top dressing.

NEW VIEW OF DAIRY FARMING—
A DUAL INDUSTRY.

I wonder how many dairy farmers realize that they are the proprietors and managers of two separate and distinct industries. I never realized it myself until a few years ago, and then it was a town man who put me wise. He has a cream separator agent. He dropped around about supper time, and having failed to sell me his make of separator, (because I was well satisfied with the one I had). I asked him to stay and eat with us. Like most city people he had his own ideas on farming, and for once I got it "put over" me.

Our talk naturally drifted to the profits of dairying. Of course he had it all nicely figured out that a man should make a fortune in a good deal less than a lifetime out of dairy cows. Now I have every faith in dairying, but I don't see the situation in quite such a rosy light as did that cream separator agent, and accordingly I got out pencil and paper and jotted down just what I was doing. On the receipt side of the statement I had down the cream cheques, cows and calves sold, etc. He nodded his head approvingly. Then I started on my expenses. One hired man for the year, one hired man for six months, so many dollars for fertilizer, so many dollars for seed, taxes, interest, and so forth. "Hold on," said he. "That's not what I want to get at. You are lumping your whole business into one. All that I was talking about was the profits of dairying."

"That's what I am trying to get at, too," I retorted.

A New View of Dairying.

"According to my idea," he came back, "you are a dual purpose man. In the first place you are a farmer, and

as a farmer you own the land on this farm, the horse barn over there, and whether or not you succeed as a farmer depends on whether the market value of the crops on the farm, clover, corn, roots, etc., will compensate you for the work of growing those crops, the cost of fertilizer, and the interest on your investment.

"Besides," he continued, "you are a dairyman—a manufacturer, if you please. After producing the raw materials in your capacity as a farmer you proceed to manufacture them into cream, dairy cattle, etc. My idea of the profits of dairying is what you can make out of your dairy cows after you have charged them with all the food you raise at market prices, all the food you buy, all the labor involved in looking after them, and then credit them with receipts on sales and the value of the manure that is taken back to the land."

That conversation took place many years ago. I will not guarantee that the cream separator agent expressed himself in just exactly the words that I have attributed to him. In fact, if I remember rightly, he merely had the idea and I had to supply most of the details. He hitched up and drove away after supper and left me with more to think of than I had had in a long time. Ever since, however, there have been two sets of books kept on this farm, one for the farm proper and the other for the dairy end of the business. When this system of book-keeping is followed one knows better the exact state of his business and just where he is making money or losing it.

The greatest advantage that I have derived from this system is that whereas I was contented under the old system with rather inferior stock I found with the double system of book-keeping that all of the money that I have been making I was making as a farmer. The stock didn't pay anything at all for labor nor investment when

charged with feed at market price minus the cost of marketing. Hence I had to get after better cows. And with the increasing value of the raw products of the farm I never have an opportunity to stop satisfied, but must for ever strive for better and better cows. As to the trouble of keeping two sets of books it is no more trouble than keeping one.—E. L. M., Ohio.

Bargains For the Repair-Man

Premier roadster, 4-cyl.	\$100
Hawkeye, 4-cyl., 2-pass., magneto, top	150
Kiascll, 5-pass., damaged motor	150
Metz roadster, 2 rumble seats in rear	200
Woods electric coupe, 4-pass., good tires & paint	200
Dorris, 4-cyl., 5-pass.	200
Hupmobile, "20" roadster, foredoors	225
Mitchell, 4-cyl., 20 h.p., delivery body	225
Studebaker, "30," 5-pass.	250
Overland, 4-cyl., 5-pass., in running order	250
Studebaker, 5-pass., 4-cyl.	250
Mitchell, 4-cyl., 5-pass., runs fairly well	250
R. C. H. 5-pass., 4-cyl.	250
Sterling, 4-cyl., 5-pass., foredoors and top	250
E. C. H. roadster, good tires and paint	250
Flanders electric 4-pass., coupe; new batteries	250
Standard Six, 5-pass., top and lamps	400
Studebaker, "30," foredoors, damp. rims	425
Springfield, 4-cyl., 7-pass.	450
Terms—\$100 cash, balance to suit.	
Weber Imp. & Auto Co., 1800 Locust St., St. Louis.	

This Splendid Watch Free



PEOPLE'S SUPPLY CO., Dept. R. W., ST. LOUIS, Mo.

TABLE SET 10c

Consists of one small centerpiece and four doilies to match, stamped on a fine quality of white linene. We include our embroidery booklet in this offer. All sent prepaid for only 10 cents.

Century Mercantile Co., St. Louis, Mo.

Learn to Play Piano or Organ in One Evening!



What Do You Think Of That! Never Played Before and Now Just Hear Her!

Thousands of Delighted Patrons

We have thousands of letters like the ones printed below, telling how quickly and easily people who didn't know one note from another learned to play by the "Easy Form" Music Method. It is so simple that there is no chance for mistake or failure—and the trial is absolutely FREE!

Much Easier Than Expected

I found your "Easy Form" just as you said. I think it is great and much easier than I thought. I do not doubt a firm when they will send their goods before they get their money.

E. R. BARNES, R. F. D. 2, San Marcos, Tex.

"Easy Form" In District School

I like the book and system very much. My little granddaughter, age 10 years old, plays for our district school. From the same book.

MRS. M. E. WADE, R. 2 Box 45, Becton, Kan.

Learned 100 Pieces in One Week!

I have had "Easy Form" one week and can play any piece in the book, correctly. I am very much pleased with it.

ELEANOR EVERETT, Box 612, LaGrange, N. C.

Send No Money

We don't want a trial and conclude for seven days, test it, see how easily it is to play, seven days and owe us nothing. If you want to keep it (as you will) it will only be necessary to send us \$1.50 at once. The balance may be paid in small monthly payments until the total price of \$6.50 is paid. Remember, you are the judge. If you don't want to buy the "Easy Form" system after using it for seven days, you will not be at even a penny's expense. But don't delay. Send the coupon now—today—while this remarkable offer remains open.

You Can Learn to Play Piano or Organ in One Evening at Home By NEW METHOD. Sent Absolutely FREE on a Seven-Day Trial to Prove It. We Will Teach You to Play the Piano or Organ, and Will Not Ask You One Cent Until You Can Play.

FREE

In this hurrying, busy twentieth century, people cannot afford to take several hours a day for several years in learning to play. They demand something easier, a shorter, simpler way—and this "Easy Form" Music Method is the result. Any person of ordinary intelligence can now sit right down and play, without any lessons, practice or special training. Just read the simple directions, turn to the selection you most fancy in the big volume of music, and PLAY it.

Any Child Can Play at Once

The "Easy Form" way is simplicity itself. No puzzling marks to study out, no mystic symbols and Chinese-looking characters to confuse you. With this new method you don't have to know one note from another, yet in a single evening you can play your favorite music with all the fingers of both hands, and play it well. It's so simple that it might justly be called

Shorthand In Music



Old Style Way

Easy Form Way

When Music Says "G," just Strike the Key Marked "G" as Indicated by Arrow in Above Illustration. You Can't Go Wrong!

Note how simple this is compared to the complicated old-style music, where a beginner couldn't even find the right key.

You don't have to take anybody's word for "Easy Form" either. We think the best way to prove it is to let you, yourself, be the judge. You can't doubt its value when you have learned to play by this method in a single evening. Therefore, we have decided to show our faith in "Easy Form" by sending the complete system—full instructions—100 pieces of standard music (all the favorites) and key-board guide—upon receipt of the coupon, without asking for a cent of money.

FREE Trial Coupon

Easy Method Music Co.,
707 Clarkson Bldg., Chicago

Please send me the "Easy Form" Music Method, with 100 pieces of music, by mail postpaid, for a seven-day FREE TRIAL. If I am satisfied and want to keep the system, I agree to send you \$1.50 at the end of the trial period and \$1.00 per month thereafter, and a total of \$6.50 is paid. If not satisfied, I will return the system to you, and I am to be at no expense whatever for the trial.

Name

Street and No.

or R. F. D.

Post Office: State:

Do you play old-style note music?

How many white keys on your piano or organ?